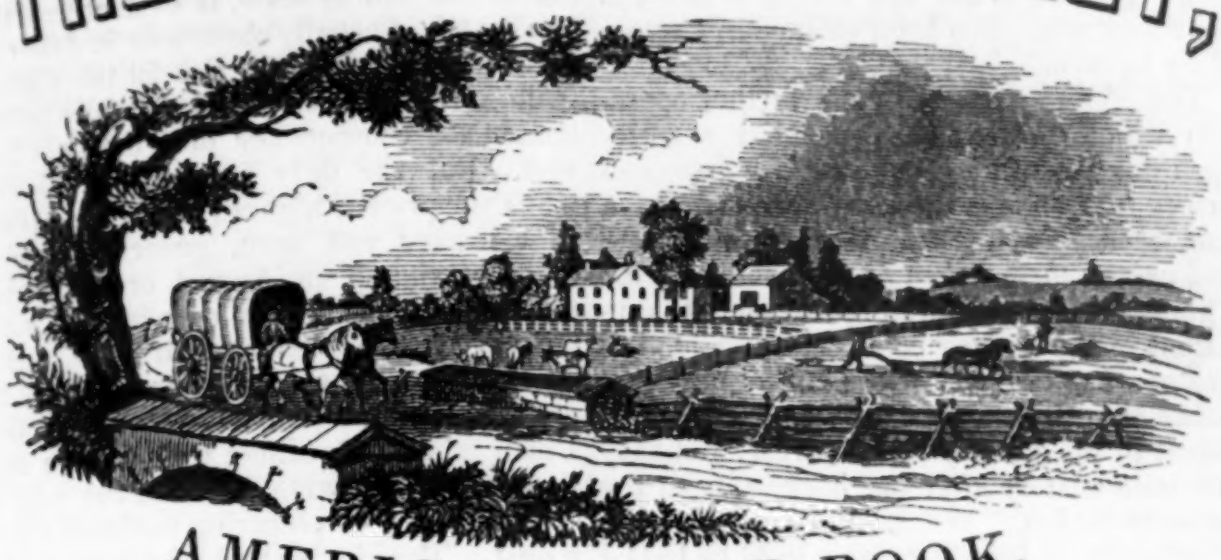
# THE FARMERS' CABINET,

AND



# AMERICAN HERD-BOOK.

DEVOTED TO

AGRICULTURE, HORTICULTURE, AND RURAL AND DOMESTIC AFFAIRS.

Perfect Agriculture is the true foundation of all trade and industry.—Liebig.

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## Agriculture and the Corn-Law.

(Concluded from last No. p. 301.)

V. From what has been already said, it appears pretty clear that restrictive corn-laws are decidedly injurious to the farmer. It remains to be seen, that, of all possible modifications of such laws, that which is known as the *sliding-scale*, is the most fraught with mischief and delusion. It is, indeed, the very quintescence of evil. It is ruinous alike to the merchant, to the manufacturer, to the consumer; to the foreign producer, to the English farmer. If our legislators had sat down in all diligence and good faith, to contrive a law which should be productive of a minimum of benefit to any class, and a maximum of injury to all, they could not possibly have devised one more exquisitely adapted to its end. Such are the singular errors into which even able men will ever be liable to fall, when they endeavour to counteract the operation of natural causes; when they commit themselves to an impotent struggle with the laws which govern the moral and material world.

Had the sliding-scale been the exact converse of what it is;—had it been made to slide in the opposite direction, the duty falling with the fall in price, and advancing with its advance;—had the duty been nominal at 40*s.* and prohibitory at 73*s.*; then, though in many respects more burdensome to the community, it would have afforded to the farmer a less delusive protection than the present law; as he would in that case have reaped the full benefit of high priced years. In one case he would have been secured against foreign competition by low prices; in the other case, by the high duty. *His protection would have been proportioned to his danger.* "What," says Dr. Johnson, "is a patron? Is he not one who will see a man struggling in the waves, without stretching out a hand to his assistance, but who, as soon as he has reached the shore in safety, *encumbers* him with help?" Just such a patron has the sliding-scale proved to the deceived and miserable farmer. When wheat is at 40*s.* a quarter, and no foreign corn can in consequence possibly come in, it mocks him with a needless protection of 50 per cent. But when prices are rising, and prospects brightening around him, and he—unhappy dupe! is solacing his tantalized and thirsty soul with a golden vision of 73*s.* a quarter for his coming crop, the protection is suddenly withdrawn, and the del-

uge of foreign competition is let in upon him. Yet this is the law which farmers, in their darkness, have been strenuously struggling to save.

The sliding-scale has yet a further operation which presses with peculiar severity upon the English agriculturist. ***It depresses prices just when his stock of corn is largest, and when he is most anxious to realize;—and raises them when he has none to sell.***** This is not an accidental operation: it is inherent in the nature of a sliding-scale. In five years out of six, prices are highest just before the harvest, because then the stock of wheat in the country is the lowest; and they fall immediately after the harvest, from the opposite reason. We give in a note a table illustrative of this fact from 1829 to 1841,† showing that the average price has invariably fallen about harvest time nearly eight per cent., or from 60*s.* 4*d.* to 55*s.* 9*d.* a quarter. In the present year, this result has been still more remarkably brought out. The harvest was unusually early, and the stocks of farmers more than usually exhausted. On July 9th, the weekly average was 65*s.* 8*d.*.; on September 10th, when the harvest was generally got in, and when farmers in the south were ready to bring their wheat to market, it had dropped to 51*s.* 6*d.*—a fall of nearly 22 per cent.!

Now that this fall is to be attributed chiefly, though not altogether, to the operation of the sliding-scale, is evident from the fact that it is equally observable in defective as in abundant years. *But* for the sliding-scale, a rise in price would naturally be the immediate consequence of a deficient harvest. But the duty being always lowest when the price is highest, and prices having, as we have just seen, generally reached their maximum in August or September, the whole of the foreign corn in bond is certain to be liberated at that time, and is thrown upon the market so as to depress the price, just as the farmer—who, being rarely a man of capital, cannot wait till the reaction of the following summer, but must realize at once—is preparing to thresh out his wheat. The annexed table* will show, that, in every year of considerable foreign importation since the enactment of the sliding-scale—except 1831 and 1839—the chief portion has been poured into the market immediately before the harvest, and the lowest point of duty has almost always been reached in August or September.

The experience of the last fourteen years, then, and more especially of the present year, must, we think, have convinced the farmer, *that the inevitable operation of the sliding-scale is to expose him to the overwhelming competition of a sudden influx of foreign corn, just at the period when he has most to sell, when he is most anxious to sell, and when consequently such competition will be most severely felt.* Is this the effect which he looked for from it? Is it an effect which he is desirous to perpetuate! Does it not convince him, that the sliding-scale, to which he trusted for protection, has been, in truth, his greatest enemy!

But it has a still further, and still more hostile operation on the poor farmer. *It exposes him to the depressing competition of*

* "The sudden admission of so large a quantity of foreign wheat in September 1838, [1.513,113 quarters in one week] had the effect, notwithstanding the ascertained deficiency of our own growth, of depressing markets; so that the average price, which on the 24th of August had been 77*s.*, declined within the four following weeks to 61*s.* 10*d.*; so that whereas the previous rise to 77*s.* was for the benefit only of the wealthier farmers, who had been able to hold their stocks of the crop of 1837 to the last, the subsequent fall was to the detriment of the numerous class of small farmers, who, having by that time got their crops in every where south of the Humber, were threshing out, and, as usual, bringing the earliest supplies to market."—Tooke, III. p. 30.

† 

| Year. | Average Price of July and August. | Average Price of Sept. and Oct. |
|---|---|---|
| | *s.* *d.* | *s.* *d.* |
| 1829 | 64 5½ | 59 0 |
| 1830 | 69 8 | 60 7½ |
| 1831 | 62 5 | 59 8 |
| 1832 | 60 10 | 53 4 |
| 1833 | 53 3 | 51 5 |
| 1834 | 46 10 | 41 3 |
| 1835 | 40 8 | 36 5 |
| 1836 | 48 0 | 46 5 |
| 1837 | 56 4 | 53 1 |
| 1838 | 71 0 | 65 2 |
| 1839 | 70 3 | 68 11 |
| 1840 | 71 2 | 64 5 |
| 1841 | 69 5 | 65 5 |

* 

| Year. | Quarters of wheat and wheat flour entered for home consumption in July, Aug. & Sept. | Quarters of wheat and wheat flour entered in the other nine months. |
|---|---|---|
| 1829 | 681,000 | 761,000 |
| 1830 | 1,435,700 | 294,000 |
| 1831 | 59,700 | 1,447,000 |
| 1832 | 278,300 | 98,400 |
| 1833 | 42,000 | 42,000 |
| 1834 | 23,000 | 41,900 |
| 1835 | 10,000 | 18,500 |
| 1836 | 12,200 | 17,900 |
| 1837 | 196,900 | 46,100 |
| 1838 | 1,538,500 | 409,500 |
| 1839 | 840,800 | 1,670,000 |
| 1840 | 1,587,600 | 813,500 |
| 1841 | 2,343,200 | 304,600 |
| 1842† | 2,580,000 | 320,000 |
| Total | 13,628,900 | 6,485,300 |

† Up to September 5th.

*a larger quantity of foreign corn than is actually wanted, or would otherwise come in.* When it becomes evident that our harvests are likely to be deficient, orders are sent abroad for large quantities of wheat, which continue to come in long after the deficiency is supplied, and when prices are receding to a moderate level. Under ordinary circumstances, this extra quantity would not be called for till it was actually wanted. But as, under the sliding-scale, the duty is rapidly rising, and will soon become prohibitory, the importer is obliged to enter it at once, and bring it upon a market where it is not required, and which, consequently, it must tend unduly to depress.

Moreover, this *happy* invention, the sliding-scale, not only exposes the farmer to the risk of more foreign wheat coming in than is required, *but of much coming in when none at all is required.* The corn merchant is obliged to act beforehand in an estimate of probabilities. If he conceives that the harvests are likely to be deficient, he does not wait, as under a free trade he would be able to do, till the deficiency is ascertained, —but he sends out his orders for foreign corn to come in at the period when the duty is usually the lowest, and the price the highest, viz., just before the harvest. But it sometimes chances, that he is mistaken in his anticipations,—that the crop turns out a fair average, and that importations are not needed. But his orders are executed, and the foreign corn comes pouring in. He dares not wait for the chance of the duty rising to a point which shall make his speculation overwhelmingly ruinous: he must liberate his corn on the best terms he can, and bring it to market as early as he can, whether wanted or not, before the full effect of the harvest in depressing prices has had time to operate.

This, then, is the *fourth* count of the farmer's indictment against the corn-laws: —that *they introduce foreign corn at the worst possible moment;*—that *they introduce more than is wanted;*—and that *they introduce it when not wanted at all.*

VI. Thus far we have considered the effect of the corn-laws on the interests of the farmer, considered merely in his capacity of a producer;* and as a producer, we have shown them to be in every way injurious to him. Either they raise the average price of corn, or they do not. If they do not, it is clear that neither he nor his landlord has any interest in maintaining them. If they do, we have seen that his landlord reaps the benefit, because he calculates his rent accordingly. *But the farmer is a consumer as well as a producer,—an eater of corn as well as a grower of it; and, in this capacity, low prices, and not high prices, are desirable for him.* Nay, more; he is a consumer to a greater extent than any other individual in the community; for to his own consumption must be added the far larger quantity required for seed-corn, and for feeding his cattle. High prices, therefore, not only add materially to his household expenses; they increase his cost of production, and thereby diminish the profits of his occupation. This point is too clear to need any further elucidation. As consumers, we repeat, farmers are more interested in low prices than any other class of men in the country.

But farmers are consumers in another point of view. They have to feed the poor. In the agricultural districts they are the chief rate-payers. Now, the corn-laws augment the poor-rates by a double operation. They increase the number of paupers, by depressing trade and manufactures;—and they add to the cost of their maintenance, by raising the price of corn. The latter effect may be judged of from the annexed table,† from which it appears, that, in five agricultural counties alone, the difference of

* It should be borne in mind, that the farmer is a producer of other articles besides corn; he is a producer of meat, of milk, of cheese, of butter; and in proportion as the price of corn rises, must the people's consumption of the other articles be reduced. But our limits prevent us from dwelling upon this point at present.

† SUMS EXPENDED FOR THE RELIEF OF THE POOR.

| COUNTIES. | Under the Old Poor Law. | | Under the New Poor Law. | |
|---|---|---|---|---|
| | 1829 | 1833 | 1837 | 1839 |
| | £ | £ | £ | £ |
| Bucks | 135,239 | 124,200 | 61,634 | 72,367 |
| Bedford | 84,513 | 77,819 | 37,447 | 39,889 |
| Essex | 282,132 | 239,946 | 149,356 | 165,340 |
| Devon | 222,381 | 210,825 | 169,449 | 194,361 |
| Dorset | 90,949 | 84,293 | 63,531 | 81,373 |
| Total | £815,214 | £737,083 | £481,417 | £553,330 |
| Average Price of Wheat | 66s. 3d. | 52s. 11d. | 55s. 10d. | 70s. 8d. |

pauper expenditure between a cheap year, and a dear one, was £78,131 under the old system, and £71,913 under the amended law. The former effect, though equally certain, it is not so easy to show by tabular statements; but it is notorious that the manufacturing districts, when prosperous, draft off and provide employment for many thousands of labourers from the agricultural counties, who would otherwise have to be supported by the rates of their native parishes;*—that, if these labourers had remained, or were now to be returned upon their native parishes, the consequent augmentation of the rates would bring ruin upon every farmer in the country;—that this re-emigration will assuredly take place, if the present depression of trade and manufactures should unhappily continue;—and that continue it assuredly will, unless those restrictive corn-laws, which press so heavily both upon our foreign commerce and our home demand, shall be speedily removed. ***The repeal of the corn-laws is therefore necessary to save the farmer himself from ultimate and entire ruin.***

Let us now consider the effect of the corn-laws upon the FARM LABOURER. The effect may be stated in two words:—***They raise the price of the commodity he has to buy, and lower the price of the commodity he has to sell.*** They enhance the cost of provisions, and depress the wages of labour.

I. Like all consumers, the agricultural labourer has a paramount interest in cheap food. It is calculated, that in ordinary years, one half his whole expenditure is laid out in bread. In years of scarcity, however, he must expend much more than this, and yet obtain much less. When the price of corn is low, he has therefore, a far greater command of the comforts and necessaries of life than when it is high. This requires no elaborate demonstration. The labourer knows it to be the case. A very slight consideration will show that it must be so. Uniform experience has shown that it is so.

Some persons, however, have ventured to assert, that this operation is counteracted by an alteration in the rate of wages;—that the wages of the labourer rise and fall according to the price of corn, and in proportion to the price of corn;—and that his command of the necessaries of life in consequence, always remains the same. The falsehood of this statement is obvious from the following consideration: Years of high price are always years of scanty crops, and are so merely *because* they are years of scanty crops. To affirm, therefore, that when corn is dear, the labourer is enabled to purchase as much bread as when corn is cheap, *is to affirm that he can obtain a larger proportion of a scanty crop than he can of an abundant one*;—which is manifestly both an untruth and an absurdity. In years of scarcity, it is obvious that *some classes* must consume much less bread than they do in years of plenty; because there is much less to be consumed. *What are these classes?*

* "We do not know the exact amount of migration from rural to industrial districts, but we know that it must have been immense; for while the *natural* increase of the population (i. e. the excess of births above deaths) during the last ten years, has been much the greatest in the former, the *actual* increase has been much the greatest in the latter. A careful examination of the table given below, coupled with the annual increase of the population, will leave little room for doubt, that since 1836, the manufacturing districts have found employment and subsistence for at least, 400,000 additional persons.

| AGRICULTURAL COUNTIES. | Increase per cent. in the population from 1831 to 1841. | Births to population in 1830. | Deaths to population in 1840. | MANUFACTURING COUNTIES. | Increase per cent. of population from 1831 to 1841 | Births to population in 1841. | Deaths to population in 1840. |
|---|---|---|---|---|---|---|---|
| | | one in | one in | | | one in | one in |
| Hereford ..... | 2.9 | 37 | 63 | Lancaster ..... | 25 | 38 | 32 |
| Cumberland ..... | 4.8 | 36 | 51 | Durham ..... | 27 | 35 | 43 |
| Norfolk ..... | 5.7 | 33 | 51 | Warwick ..... | 19 | 36 | 45 |
| Oxford ..... | 6 1 | 32 | 50 | Stafford ..... | 24 | 32 | 51 |
| Suffolk ..... | 6.3 | 37 | 52 | York, W. R. ..... | 18 | 38 | 43 |
| Buckingham .... | 6.4 | 36 | 52 | Chester ..... ..... | 19 | 43 | 42 |
| Average ..... | 5.4 | 35 | 52 | Average ..... | 22 | 37 | 43 |

N. B. The year 1830, is the last for which we have any calculation of the births.—"*Not Over production,*" &c., by W. R. Greg, p. 16.

Are they the rich, or are they the poor? Are they the higher and middle classes, or are they the labouring classes? We know that the former rarely alter at all, and never alter materially, their rate of consumption;—we know, therefore, that the consumption of the latter must fall off in a more than proportionate degree. When the rich are compelled to retrench, they retrench in luxuries, not in food. When the pressure of scarcity compels the poor man to retrench, he has no luxuries to lay down, and his retrenchment therefore falls almost immediately upon his daily bread.

It is no doubt the case in many parts of England, perhaps in all, that the wages of the farm labourer do vary to a certain extent in years of diversity; that is to say, that when the price of provisions is so high as to make it impossible for the labourer to maintain his family on his ordinary wages, those wages are advanced, though in an inadequate degree; otherwise he would be obliged to seek assistance from the parish;—and the farmer knows, that whether he pays the advance in the form of wages or of poor-rates, is a matter of comparatively little moment. In like manner, when the price of provisions is unusually low, wages are commonly reduced, because the general redundance of labour in the agricultural districts enables the farmer, in the great majority of instances, to procure hands at the lowest rate of earnings that will afford a bare subsistence. But is there a single agricultural labourer in the country who will affirm that his wages go so far when wheat is at 60*s.* as when it stands at 40*s.*? We believe not.

In 1835 and 1836, the prices of all kinds of farming produce were unusually low; and in the spring of the latter year, a committee of the House of Commons was, of course, appointed to inquire into the causes of the existing agricultural distress. Great numbers of witnesses from all parts of the country were examined, the chief portion of whom were farmers. Of thirty-eight of these, who were particularly questioned as to the comparative condition of the labourer at that time, in order to ascertain whether or not he had benefited as he ought to have done, by the low price of food, only eight spoke doubtfully, or negatively;—the remaining thirty declared with one consent, that, although wages were unquestionably low, the labourers were in general fully employed, *and had never within their memory, been in so comfortable a condition or able to procure so large a supply of the decencies and necessaries of life.** A similar committee, which had sat in 1833, at which period also prices were moderate, and produce was abundant, reported to the same effect in the following words:—

"Amidst the numerous difficulties to which agriculture in this country is exposed, and amidst the distress which unhappily exists, it is a consolation to find that the general condition of the agricultural labourer in full employment *is better now than at any former period; his money wages giving him a greater command over the necessaries and conveniences of life.*"

In 1836, when the committee made their report, wheat was under 40*s.* a quarter. Within three years of this period, the price had reached 73*s.*, or nearly double. Was the labourer as comfortably off in 1839† as he had been in 1826? Could he procure any thing like the same amount of wholesome and nutritious food? Could he expend as much in clothing? Had his wages advanced in any thing like a corresponding proportion? *If they had*, why was the home trade so bad? Why were the poor-rates so much heavier in the latter year?‡ Why had the consumption of excisable articles so greatly fallen off?‖ And why had the duties on malt, tea, and sugar, been so

* First, Second, and Third Reports of the Committee of 1836, especially p. 353.

† "The state of prices of provisions, and of the rate of wages in the last two years, (1838, 1839,) strikingly confirms the deductions from previous experience of the little tendency which exists in wages to follow a fall or rise in the prices of provisions, except at long intervals, and then only in a degree far short of such fall or rise.....In a few instances the wages of agricultural labourers have been raised, but in a very trifling proportion to the rise of necessaries; and in cases where an advance has been granted, it has rather been from motives of fear or humanity on the part of the employer, than as a legitimate consequence of an improved demand relatively to the supply of labour." —Tooke on Prices, III. p. 52.

‡ In spite of increased economy brought about by the progressive introduction of the amended law, the total amount expended for the relief of the poor, had risen from £3,800,000 in 1836, to £4,310,000 in 1839. And the *increase had taken place in every county in England*, except Lincoln, Shropshire, and Southampton.

‖ The excise duties collected in 1836, were £16,587,992; and in 1839, they had fallen off to £15,488,000 instead of having risen to £17,088,000, which they would have done had they kept pace with the population.

singularly diminished?* *If they had not*, what becomes of the assertion that the high price of wheat is no injury to the farm labourer?

II. But the wages of the labourer are not only *not raised* in proportion to the price of corn;—it admits of certain demonstration, that in the long run they are actually lowered by the operation of the corn-laws. That these laws have the effect of curtailing *both the foreign and the home demand*, for the products of manufacturing industry, we shall take for granted, because it has been so repeatedly proved, and is now so generally acknowledged, that all reasoning upon the subject here would be superfluous. In proportion as they have this effect, they limit the extension of manufactures, and the employment of the people therein. They limit the demand for labour, and consequently lessen its remuneration.

The number of individuals occupied in the cultivation of the soil has not increased, and will not increase, with the extension of that cultivation. On the contrary, it has diminished, and we have no doubt will continue to diminish, unless some such change should take place in our system of agriculture as shall approach to garden cultivation. In the ten years ending with 1830, we know that tillage had been much extended, and that large additional quantities of land had been brought under the plough. The number of enclosure bills passed during that period was 205; yet, during that period, the number of families engaged in agriculture had *decreased* from 967,500 to 961,000; while 470,000 families had been added to our total population. The returns of the last ten years, from 1831 to 1841, have not yet been published; but we will venture to predict, that, when published, they will show a similar result. From this we draw two conclusions, which admit of no denial:—*first*, that the economy of labour by the introduction of improved modes of culture, more than counterbalances the demand for labour by fresh land being brought under the plough;—and consequently, *in the second place*, that it is not to any advance in agriculture that our increasing population must look for employment and support.

But the population of Great Britain multiplies at the rate of 200,000 annually, of whom three-fourths, or 150,000, must be estimated to belong to the working classes, who must either starve, or live upon charity, or subsist by the labour of their hands. Employment must be found for 150,000 additional pair of hands every year. As long as trade and commerce prosper, they will find this employment in manufacturing pursuits, and the subsidiary crafts;—when trade and commerce are depressed and blighted, they will be thrown back upon the land, either to live in idleness upon its fruits, *or by competition to depress the wages of the farming labourer*. Hitherto the course of events has happily followed the former alternative; but the time for the latter is fast approaching, nay, has actually commenced; and, unless the corn-laws are speedily removed, it can no longer be arrested. Now, we have seen that no additional hands are required for the cultivation of the soil;—in fact, their numbers are already redundant. What, then, must be the effect of the annual influx of 150,000 additional labourers into a market already overstocked? What but *ruinously to depress the wages of labour,—the price of the only commodity the poor man has to sell!* The conclusion is as certain as any in arithmetic, that *such a check to the advance of manufactures as the corn-laws are fast bringing about, will infallibly reduce the earnings of the agricultural labourer to the very lowest point at which even the most uncomfortable life can be sustained,—far below even their present pitiful amount.*

As to what the corn-law *has* effected, some controversy may arise. As to what it has *not* effected, there can be no controversy whatever; since it must be evident to the

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| DUTIES ON | 1836 | 1839 | Would have been in 1839, had it kept pace with the population. | |
|---|---|---|---|---|
| | £ | £ | | |
| Malt ..... | 5,776,004 | 4,853,992 | | |
| Tea ..... | 4,255,949 | 3,222,571 | | |
| Sugar ..... | 4,348,609 | 4,224,595 | | |
| Total ..... .. | £14,380,652 | £12,301,169 | £14,812,500 | Diminution two millions and a half. |

dullest understanding, that what has not been effected at all, cannot have been effected by the corn-law. The corn-laws, then, have *not* made farmers prosperous,—have *not* made prices steady,—have *not* raised nor maintained the wages of the labourer. Yet these were the *avowed* objects for which they were enacted. The object they *have* effected was one which was *not* avowed, viz., to raise the rents of the landlords:—and this they have effected at the expense of undermining that national prosperity, by the continuance of which alone can high rents be permanently secured. With the blind unthrift which is the usual companion and corrective of rapacity, they have killed the goose which laid their golden eggs.

W. R. Greg.

Caton, Lancaster, Oct. 30th, 1842.

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From the American Agriculturist.

## On Driving Sheep.

I have been in the practice of purchasing and driving sheep from one portion of this State to the other, for several years, and it may be useful to some of your readers to understand my method of conveying them in the cheapest, safest, and best manner.

We start them on the road as early as light appears in the eastern horizon, with an assistant before them, to prevent their rapid progress, and many unforeseen accidents which they are exposed to. It will take the most of one day to break them into a proper line of march. On the first day they will push forward several miles before they incline to eat. As soon as they will, let them commence feeding on the roadside. The man forward will take care that they progress but little faster than they usually do when grazing in their pastures. They will soon learn to run by one another two or three rods, then stop to feed; the forward column will frequently form a line in front, as they feed in more perfect order than many of our flood-wood companies do under military discipline. By this even management from day to day, they will keep full and not be fatigued. We generally let them rest awhile at mid-day, and secure them in a small yard about sundown, without any expense. They are ready and convenient for their onward course early the next morning.

I have thus managed from 600 to 1000 many times on several days journey; they do not appear fatigued, but look full through the day. Our flocks do not fall away in flesh, but often gain on their journey. This method must look reasonable to those who are acquainted with the nature of the sheep; while feeding about thin pastures, they are always on the move; the most active are forward, and they are no more inclined to feed in the night than a drove of turkeys.

To urge them along in the winter while snow is on the ground, one person must take a few and drive on ahead, those behind will follow on; but to get them along without fatigue, they must be allowed to string along the beaten path for a reasonable distance.

The shepherd-dog must be a valuable animal to a flock-master, in any situation, and it is a wonder that we have none of them in this sheepish state; in an especial manner when there are so many worthless animals reared among us. If any of your readers have an extra one to spare, I would give in exchange a valuable merino ram for it; both parties could be thus mutually benefited.

Solomon W. Jewett.

Weybridge, Vt., Feb. 24th, 1844.

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Restoring the Drowned.—The following directions have been published by the American Shipwreck Society, as reported by Valentine Mott, M. D., Surgeon General:

"Immediately as the body is removed from the water, press the chest suddenly and forcibly, downward and backward, and instantly discontinue the pressure. Repeat this without interruption, until a pair of common bellows can be procured. When obtained, introduce the nozzle well upon the base of the tongue. Surround the mouth with a towel or handkerchief and close it. Direct a bystander to press firmly upon the projecting part of the neck—called Adam's apple—and use the bellows actively. Then press upon the chest to expel the air from the lungs, to imitate natural breathing. Continue this at least one hour, unless signs of natural breathing come on.

"Wrap the body in blankets, place it near a fire, and do every thing to preserve the natural warmth, as well as to impart an artificial heat, if possible. Every thing, however, is secondary to inflating the lungs. Send for a medical man immediately. Avoid all friction until respiration shall be in some degree restored."

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Soda for Washing.—Take two pounds of sal soda, two pounds of hard soap, and boil them together, in 10 quarts of water for two hours. Put one pint of this mixture to each pail of water required to boil the clothes in. They should be put to soak in cold water over night.

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If each one would sweep before his own door, we should have a clean street.

For the Farmers' Cabinet.

## Saltpetre and Plaster of Paris.

Mr. Editor,—In order to ascertain what manures are best for land, it is necessary to consider the objects of agriculture. Those objects are principally to produce grain and grass; which productions are used for the food of man and animals. Food and clothing for man are the ulterior objects of farming. I will, for the present, confine myself to the former. What are the elements of the food of man? Dr. Liebig has analyzed wheat flour, and found it to consist of starch, gluten and magnesia; beef and other animal substances consist in great part of nitrogen. The gluten of wheat is the only part of it which enters into the formation of flesh, and supplies the human system with nitrogen. Nitrogen being the principal constituent of the flesh of animals, and also of flour, makes those substances the fittest and strongest food for man. As flesh contains so much nitrogen, it follows that the food of animals, viz., grain and plants, should contain nitrogen; and in corroboration of that inference, Dr. Liebig says that nitrogen is an invariable constituent of plants,—and that corn, grass, and all plants without exception, contain nitrogen. And in turn, as plants and grain contain nitrogen, it is important that the manure intended for the food of plants, should contain all the nitrogen possible; and that it should be retained in any manure that the farmer has, and not suffered to rise from it in the form of gas, and be blown away by the wind.

But what is nitrogen, if it is so important? It is a simple substance in the form of a gas; it constitutes about four-fifths of the atmosphere; it rises from putrefying animal and vegetable substances, also from animal manures, and especially from the urine of men and horses; it rises from these substances in the form of ammonia—which is composed of nitrogen and hydrogen—which unite with the carbonic acid, which also exists in the atmosphere generally, and form carbonate of ammonia. Nitrogen is also a principal constituent of saltpetre, in the language of chemistry, called nitre. Those who have paid some attention to chemistry, know very well what nitrogen is. We farmers must have recourse to chemistry; we know nothing about manures except as to their apparent effects; we do not know, without the aid of chemistry, which of the elements or simple substances of which that manure is composed, produces those effects.

Dr. Liebig says, "This ammonia has not been produced by the animal organism, it existed before the creation of human beings, —it is a part, a primary constituent, of the globe itself." It is undoubtedly not only an indispensable manure, but a cheap one. The nitrogen of decaying animals and vegetables rises into the atmosphere in the form of ammonia, and whenever it rains, this ammonia is brought from the atmosphere to the surface of the earth, and is as constantly replaced by the putrefaction of animal and vegetable matters. A part only of the carbonate of ammonia, which is conveyed by rain to the soil, is received by plants, because a certain quantity of it is volatilized with the vapour of water; only that portion of it can be assimilated or taken up by the roots, which sinks deeply into the soil, or which is conveyed directly to the leaves by dew, or is absorbed from the air along with the carbonic acid.

Saltpetre is made from decayed vegetable and animal matter, combined with potash, proving one constituent of saltpetre identical with nitrogen. Ammonia is an extremely pungent gas, and is manufactured from horns, bones, parings of hides, and other animal substances. Liquid ammonia is known also by the name of spirit of hartshorne. As ammonia and saltpetre are manufactured from vegetable and animal substances, it follows that nitrogen—the principal constituent of both—must have been food of both plants and animals.

The only remaining question can be, how is such a volatile substance to be fixed in the soil, and kept in the possession of the agriculturist.

Mr. Liebig has also decided this matter; he says, "The evident influence of gypsum upon the growth of grasses—the striking fertility and luxuriance of a meadow upon which it is strewed—depend principally upon its fixing in the soil the ammonia of the atmosphere, which would otherwise be volatilized, with the water which evaporates. The carbonate of ammonia contained in rain water, is decomposed by gypsum in precisely the same manner as in the manufacture of sal-ammoniac. Soluble sulphate of ammonia and carbonate of lime are formed; and this salt of ammonia possessing no volatility is consequently retained in the soil. All the gypsum gradually disappears, but its action upon the carbonate of ammonia continues as long as a trace of it exists."

Again, he says, "It is quite evident therefore, that the common view concerning the influence of certain salts upon the growth of plants, evinces only ignorance of its cause. The action of gypsum or chloride of calcium really consists in their giving a fixed condition to the nitrogen, or ammonia which is

brought into the soil, and which is indispensable for the nutrition of plants."

He says, "In order to form a conception of the effect of gypsum, it may be sufficient to remark, that 110 lbs. of burned gypsum fix as much ammonia in the soil, as 6,880 lbs. of horses' urine would yield to it, even on the supposition that all the nitrogen of the urea and hippuric acid—of the urine—were absorbed by the plants without the smallest loss, in the form of carbonate of ammonia. If we admit, with Boussingault, that the nitrogen in grass amounts to one hundredth of its weight, then every pound of nitrogen which we add increases the produce of the meadow 100 lbs., and this increased produce of 100 lbs. is effected by the aid of a little more than 4 lbs. of gypsum."

In continuation, he says: "Water is absolutely necessary to effect the decomposition of the gypsum, on account of its difficult solubility—one part of gypsum requires 400 parts of water for solution—and also to assist in the absorption of the sulphate of ammonia by the plants; hence it happens, that the influence of gypsum is not observable on dry fields and meadows. In such it would be advisable to employ a salt of more easy solubility, such as chloride of calcium. The decomposition of gypsum by carbonate of ammonia, does not take place instantaneously; on the contrary, it proceeds very gradually, and this explains why the action of the gypsum lasts for several years."

From the above we may infer that Plaster of Paris should be strewed on land in the fall of the year, because in the winter and early part of spring the earth becomes completely saturated with rain and snow water, and of course any gypsum that may be on the soil, will have a much better chance of being rendered favourable to the action of the carbonate of ammonia, than it would have late in the spring, when evaporation goes on much more rapidly, and rain water is not suffered to remain long on the fields in sufficient quantities.

A very partial knowledge of the above subject, will show farmers the folly of spreading farm-yard manure on ploughed fields and leaving it lay on the top of the ground, until all the nitrogen has risen from it into the atmosphere and blown away by the winds.

RUSTICUS.

Strasburg, Pa., March, 1844.

THE readers of the Cabinet have been more than once reminded, that the editor does not himself adopt, or endorse the views of his correspondents, nor does he wish others to do so, further than suits the judgment of each one. With respect to the necessity or expediency of sowing plaster of Paris in the autumn, in order to insure the greatest amount of benefit, we apprehend that although the decomposition, &c., of plaster, may not be *instantaneous*, it is yet not so very tardy, as to make the winter rains necessary to bring it into operation. Experience has led the editor to conclude, that about the middle or 20th of the Fourth month, after the clover has got cleverly into leaf, is the best time for sowing plaster. A still morning with a heavy dew, affords a fine opportunity. It is undesirable to sow it during a drought, as it will not be likely to operate while that continues.—ED.

## Corned Crows.

PERHAPS some one innocently enough may ask why the following should appear in the Cabinet? But surely if its drollery alone is not a sufficient passport for it, we might plead the propriety of giving *recipes* for saving the crops of the farmer, without admitting for one moment, that so respectable a calling as his, could number among its professors a single individual who might take a profitable lesson from the drunken crows. The Ledger says it lately appeared in an Illinois paper.—ED.

COLONEL B——— has one of the best farms on the Illinois river. About one hundred acres of it are now covered with waving corn. When it came up in the spring, the crows seemed determined on its entire destruction. When one was killed, it seemed as though a dozen came to its funeral; and though the sharp crack of the rifle often drove them away, they always returned with its echo. The Colonel at length became weary of throwing grass, and resolved on trying the virtue of stones. He sent to the druggist for a gallon of alcohol, in which he soaked a few quarts of corn, and scattered it over his field. The blacklegs came and partook with their usual relish, and as usual they were pretty well *corned;* and such a cooing and cackling—such a strutting and swaggering. When the boys attempted to catch them, they were not a little amused at their staggering gait, and their zig-zag way through the air. At length they gained the edge of the woods, and there being joined by a recruit which happened to be sober, they united at the top of their voices in haw-haw-hawing, and shouting either in praise or dispraise of alcohol; it was difficult to tell which, as they tattled away without rhyme or reason. But the Colonel saved his corn. As soon as they became sober, they set their faces steadfastly against alcohol. Not another kernel would they touch in his field, lest it should contain the nauseous thing, while they went and pulled up the corn of his neighbours. They have too much respect for their character, black as they are, again to be found drunk.

## Report of the Committee on Agriculture, relative to the Application of Lime to the different qualities of Soil, and the use of Calcareous matter for Agricultural purposes.

Concluded from last No. p. 309.

### *Of the effect of Lime upon the quality of crops, and upon matters injurious to them.*

The settled judgment of observant farmers, both in Europe and our own country, seems to be, that its application promotes the growth and improves the quality of all our grains and grasses, in all soils deficient in calcareous matter, and by its neutralizing effect upon our soils, frees us from any noxious weeds and insects. Would not those who seek to have the standard weight of wheat reduced, find it to their interest to increase both its aggregate and specific weight by the application of lime and marl to their lands, instead of looking to a reduction of the standard below 60 pounds to the bushel? Let us not fall back in this enterprizing age.

It seems to be universally admitted in England, that lime tends to prevent smut in wheat, when applied to the grain before seeding. Being soaked a few hours in a strong brine of salt and water, it is then mixed with fresh slaked lime in fine powder and sown. Lime as well as the alkalies quickens the germination of all seeds, and so hastens the coming up of all seeded and planted crops. Acid substances injurious to growing plants, are neutralized by lime.

These acids often exist, more particularly in newly drained marshy or boggy land. Sulphate of iron or copperas,—very injurious to living plants,—is common in the same kind of soil; and when a sufficient quantity of lime is applied and thoroughly mixed with the soil, the *hurtful* compound is decomposed, and an oxide of iron and *sulphate of lime* or gypsum is formed, both of which are essential to plants.

Having thus indicated some of the most important effects produced by lime in its relations to agriculture, we proceed to consider some of the modes of applying it to the soil.

### *Of the best modes of applying Lime.*

Unfortunately the great body of the agriculturists of our country, and indeed of the world, have hitherto been too little disposed to make themselves acquainted with the fixed principles of the sciences appertaining to their profession. Without some such knowledge we are often liable to entertain wrong views, and be mistaken in matters of fact coming under our notice. How often do we find persons firmly adhering to *false facts*, which a knowledge of the principles involved, would have guarded them from! Upon this subject we submit the following observations.

In the first place, we think it must be obvious to every one who will look into the subject, that to attain the *greatest* effect from lime, it must be applied in a perfectly fine powder or in solution, and be intimately mixed with the soil to a proper depth.

But bearing in mind its solubility, we are warned by economy not to apply it much below the surface, because it never ascends unless brought up by the plough, but on the contrary is incessantly descending deeper into the soil. The more porous the soil the more rapidly it will descend, and of course, should not be placed so deep in a friable soil, as it may be in a stiffer one.

Besides being carried down by solution, it is found to descend in powder by being washed mechanically through the interstices of a friable or recently cultivated soil. It seems clear therefore, that lime should either be laid on the surface as a top dressing, or only mixed with the surface soil by the harrow or cultivator.

In eastern Pennsylvania, where the farmers have long had experience in the use of lime, it has been the practice of late years, to spread it carefully upon their grass lands at least two years before ploughing them. The excellence of this system is sustained both by theory and practice—because much of the lime will be found to have sunk some inches into the soil, but not below the reach of the plough, which turns it up, and by subsequent cultivation it becomes well mixed through the soil.

Quick lime and manure should not be mixed together or applied about the same time to the soil—the intervention of a year would be better perhaps, for the reason, that it very rapidly decomposes the manure and liberates faster than is necessary the valuable gaseous matters, which should remain in the soil as far as possible until the plants absorb them. In hot weather this effect would be more pernicious than when the ground is cold. These objections to mixing lime with manure do not apply to marl, which acts very slowly upon manure. Lime is useful in composts which contain little or no stable manure; in fact, both experience and theory coincide in favour of the opinion, that the most economical mode of using lime, is by mixing with at least five or six times its weight of earth,—which is the better, if rich in vegetable matter,—the

mixture should lay several months before using. Lime applied in this way, acts more promptly upon the growing crop than when applied alone, and the bulk of matter being greater it may be more uniformly spread over the ground.

Almost every farmer can find materials for such composts, in swamps or ditches. As the decay of organic matter depends upon the presence of the oxygen of the atmosphere, of course lime aids it most when near the surface, and when buried deep in the soil is almost, if not quite useless for this purpose.

### *Of the quantity to be applied.*

In the present state of knowledge, experience should guide us in regard to the proper quantity to be applied to the acre, inasmuch as a great diversity of opinion exists among those who use lime. And this diversity of opinion, we are strongly inclined to believe, will continue to exist until analysis is resorted to as our guide—both as to the *properties of the soil* and the *quality of the lime.* In England, it is common to use from 160 to 320 bushels per acre. The heat of our summers in rapidly effecting the decomposition of vegetable matters, does much here, that in England requires the aid of lime—and the alternate freezing and thawing of our soil in winter, render less lime necessary to promote the disintegration of the mineral substances.

It was formerly more common to apply lime in larger doses, and at longer intervals than seems to be preferred now. The more carefully the lime is applied, the less is required, and from all the information we at present have upon the subject, we incline to the belief, that a quantity equal to about 40 to 50 bushels of *good quick lime*, should be applied to an acre on most of our soils, and repeated every eight or ten years; or what would be better, perhaps, half that quantity in compost, applied at shorter intervals. The reason why lime must be repeatedly added to soils, we hope we have rendered sufficiently obvious to all in the facts already stated,—because we regard it as a highly important matter,—that the quantity is incessantly being reduced by what is carried off in the rain water, water percolating through the soil, absorbed by plants and carried off in the crops, &c. We think then that experience confirmed by theory, points to the propriety of applying small doses at short intervals. By adopting this mode, the lime is kept nearer the surface and more uniformly distributed to every part of the soil, so that every fibre of the roots of the growing plants can have its due supply, and all the matters of the soil are more likely to be continually acted on.

The shell marls so bountifully dispensed over a considerable portion of our State, below tide water, have an important bearing upon the agricultural prosperity of our tide water districts.

They consist of marine shells mixed with sand or clay, and their value is in proportion to the amount of shells they contain susceptible of being readily disintegrated. When they consist principally of hard shells, it might be advisable to calcine them, if good marl cannot be had. The marl should lay on the surface one or two years, according to the condition of the shells, before being ploughed in, in order that the shells may be crumbled to powder, or as nearly so as possible. The composition of our marls varies so much, that no rule can be laid down as to the quantity proper to be applied; all we can do is to refer those interested, to the reports of Professor Ducatel, the late State Geologist, in which they will find much valuable information.

It has generally been supposed by those cultivating limestone lands, that the calcareous principle was not wanting in them. Believing that this opinion is founded in error to a great extent, if not entirely, it may not be deemed entirely out of place in concluding this subject, to recommend the use of lime upon them, unless chemical analysis should show a sufficiency of it in the soil.

### *Of the value of Lime compared with common manure.*

Chemical analysis shows that common barn-yard manure contains all the ingredients that enter into the composition of plants, and if the dung of all the domestic animals on a farm be mixed together, the mineral constituents will be found about in the proportion required by our cultivated crops. This is the reason why it is applicable to all soils, and in every climate.

The committee know of no means whereby the comparative value of lime and common manure could be ascertained. The action of common manure lasting only some two or three years, whilst that of lime is prolonged to 20 or 30 or more years.

### *Of Sulphate of Lime or Gypsum.*

Although not directed by the order of the House, to make an inquiry into the uses or effects of lime in this form, we take leave to submit, that Professor Liebig says, that the action of gypsum "depends only upon its fixing in the soil the ammonia of the atmosphere, which would otherwise be vola-

talized, with the water which evaporates. The carbonate of ammonia contained in rain water is decomposed by gypsum, in precisely the same manner as in the manufacture of sal-ammoniac. Soluble sulphate of ammonia and carbonate of lime are formed; and this salt of ammonia possessing no volatility is consequently retained in the soil. All the gypsum gradually disappears, but its action upon the carbonate of ammonia continues as long as it exists." This, as we believe well established fact, most strongly urges the necessity of its application to all soils in which it is deficient, and also to the utility of applying it liberally to composts and manure heaps; it also materially lessens the odors from stables, privies, &c., whereby the health of man is promoted, as well as of the domestic animals. Gypsum, like lime, however, frequently contains a large proportion of matters foreign to it—most generally carbonate of lime, and the materials of which clay consists.

In this view of the matter, we take it for granted, that its use will be greatly extended, and how far the farmer's interest is protected under our present system of inspection, in relation to the purity of this article, we know not. The subject, we think, merits public attention.

*Concluding remarks.*

A few years since, the use of lime for agricultural purposes in the State, was almost wholly confined to a few persons in the vicinity of what is called the Gunpowder limestone districts, in Baltimore county, and fewer still in Carroll and Frederick counties, on the Western Shore, and in Talbot, Kent and Queen Anne counties, on the Eastern Shore. At this time, however, its use is rapidly spreading all over the State. The valuable beds of marl in the lower counties so long neglected, are being, we believe, more extensively used, although much less so than their intrinsic value merits. Their use should not be confined to the farms on which they occur, but all along the navigable shores of the Chesapeake Bay and its tributaries, at least, if not along the lines of all our public improvements. Their existence, in many places, within a few yards of where vessels can ride, greatly favours their use.

Pure lime, however, can be more advantageously hauled by the farmer to greater distances, and consequently immense quantities of lime will be wanting in our tide water counties through all coming time. The cause of the great extension of the use of lime, is attributable partly to the diffusion of more correct views in regard to its uses in agricultural operations, and the sanctions of experience greatly aided by a large reduction in price.

Formerly our tide water counties procured their stone lime from two sources, principally, viz: the Gunpowder district in Baltimore county, and Thomastown, in Maine,—that from the former costing upon our bay and river shores, say from 30 to 40 cents per bushel, and that from the latter usually a still higher price. In the progress of time, however, avenues of cheap transportation have opened into the interior, bringing both the stone and the fuel for burning them to tide water, at greatly reduced rates. It is now pouring into the Chesapeake Bay through the Chesapeake and Delaware Canal, the Tide Water Canal, the Baltimore and Susquehanna Rail-road, and from the valley of Herring Run, near the city of Baltimore. Limestone also occurs along the line of the Baltimore and Ohio Rail-road, between Baltimore and the Potomac, and is being distributed along the line of that road, as also along the Philadelphia, Wilmington and Baltimore, Baltimore and Washington, and Elk-Ridge Rail-roads. And last, though not least, inexhaustible supplies of good limestone occur at many places upon the Chesapeake and Ohio Canal, which can be advantageously brought to tide water. And when that great work reaches the coal region of Alleghany county, the fine coal can be delivered at the limestone quarries on the lower parts of the canal, and at tide water, at exceedingly low rates, and thence can be cheaply distributed among all the counties bordering on the Chesapeake Bay and its tributaries. A considerable lime trade has already sprung up along the canal. The new impulse thus given to our agriculture, by our public works, will always continue to the mutual advantage of both. Although the embarrassed condition of our finances, growing out of their construction, rests heavily upon us, and is the present cause of much prejudice against them; we think the time is not remote, however, when they will be differently regarded. By the census of 1840, it is shown that the annual product of the agricultural industry of Maryland, alone amounts to seventeen millions of dollars; nearly two-thirds of the annual product of the entire industry of the State. The tide of emigration has ceased. Mercantile operations have been curtailed, and capital is seeking permanent investment in the soil. The spirit of improvement manifested throughout the State, with such great facilities to sustain it, and a sure reward awaiting it, authorizes the assumption, we think, that the

annual product of our industry will be greatly increased—the faith and honour of our State maintained, and the substantial comfort and happiness of our people established.

The committee respectfully recommend to their agricultural brethren of the State of Maryland, to procure the analysis of such soils, as they may take means to improve by lime, or otherwise; and transmit the same to the chairman of the committee on Agriculture, at the next session of the legislature, together with a portion of the soil, and its average product per acre, prior to improvement—and to several succeeding legislatures its average product under such improvement—to the end that a basis may be formed upon which an intelligent and profitable system of husbandry may be established.

All of which is respectfully submitted.

D. W. Naill,
Philip Poultney,
Robert Ghiselin,
Lyde Griffith,
Warford Mann.

*Table accompanying the above, showing the Annual Products of Industry in Maryland.*

| | | | | |
|---|---|---|---|---|
| I. *Agriculture*, | | | | |
| Horses and Mules, | No. | 92,220 | $4,611,000 | |
| Neat Cattle, | " | 225,714 | 2,708,568 | |
| Sheep, | " | 257,921 | 381,881 | |
| Hogs, | " | 416,943 | 1,250,829 | |
| 25 per cent. of | | — | $8,952,278 | |
| is | | — | $2,238,069 | |
| Poultry, | | — | 218,765 | |
| | | | | $2,456,834 |
| Wheat, | Bushels | 3,345,783 | $3,345,783 | |
| Oats, | " | 3,534,211 | 1,413,684 | |
| Indian Corn, | " | 8,233,086 | 4,058,271 | |
| Other Grain, | " | ,800,777 | 610,582 | |
| Potatoes, | " | 1,036,433 | 259,108 | |
| | | | | 10,559,008 |
| Wool, | lbs. | 488,201 | $170,870 | |
| Products of Dairy, | | — | 457,466 | |
| " Orchards, | | — | 105,740 | |
| Tobacco, | lbs. | 24,846,012 | 1,739,220 | |
| Hay, | tons. | 106,687 | 1,066,870 | |
| Other Products, | | — | 1,020,712 | |
| | | | | 4,560,878 |
| Amount of Agricultural Products, | | — | — | $17,586,720 |
| II. *Commerce*, 25 per cent. on Capital, | | — | — | 3,499,087 |
| III. *Manufactures*, | | | | |
| Metals and Machinery, | | $690,155 | | |
| Woollen, | | 235,900 | | |
| Cotton, &c., | | 1,692,040 | | |
| Hats and Caps, | | 153,456 | | |
| Leather, | | 150,275 | | |
| Paper, | | 198,100 | | |
| Carriages, | | 357,622 | | |
| Furniture, | | 305,360 | | |
| Ships, | | 279,271 | | |
| Houses, | | 1,078,770 | | |
| Other Manufactures, | | 2,779,855 | | |
| | | | $7,921,334 | |
| Deduct for materials one third, | | | 2,640,444 | |
| | | | | 5,280,890 |
| Manufactures by Mills, 1 quarter, | | — | $816,812 | |
| Printing, &c., | | — | 114,975 | |
| | | | | 931,787 |
| IV. *Mines*, | | — | — | 1,056,210 |
| V. *The Forest*, | | — | — | 241,194 |
| VI. *Fisheries*, | | — | — | 225,273 |
| Total, | | — | — | $28,821,161 |

To make Cream Cheese.—Take one quart of very rich cream, a little soured, put it in a linen cloth and tie it as close to the cream as you can. Then hang it up to drain for two days—take it down, and carefully turn it into a clean cloth, and hang it up for two more days—then take it down, and having put a piece of linen on a deep soup-plate, turn your cheese upon it. Cover it over with your linen; keep turning it every day on to a clean plate and clean cloth until it is ripe; which will be in about ten days or a fortnight, or may be longer, as it depends on the heat of the weather. Sprinkle a little salt on the outside, when you turn them. If it is wanted to ripen quick, keep it covered with mint, or nettle leaves. The size made from a quart of cream is most convenient, but if wished larger, they can be made so.—*Cultivator.*

## Delaware Sheep-Shearing.

The following notice of a truly patriarchal sheep-shearing, we take from the Delaware Republican, of the 24th ult., published at Wilmington. We have not had the gratification of seeing Philip Reybold's flock, but we have understood it is one of the finest in the State. His mutton, which has several times been exhibited in our market, has been equal to any that we have seen. Our readers will recollect that twenty-one of his two-year old wethers were slaughtered here in the early part of the Third mo., 1842. The four quarters dressed of one of them, weighed 147 lbs. Portraits of two of those sheep, may be found in our sixth volume.—Ed.

Last week, we learn that Major Reybold, of this county, commenced sheering his large and valuable flock of fine Leicester sheep. On Friday, he invited several of his agricultural friends to witness his operations and partake of a "fatted lamb," of that famous breed. One hundred of the run of his flock were sheered under the inspection of Isaac Reeves, Capt. Maxwell, Dr. J. W. Thomson and C. P. Holcomb, Esq., and averaged about seven and a half pounds per fleece; some weighing nearly nine pounds; few under six, and generally from seven to eight pounds. A most extraordinary yield, two samples of which have been kindly presented to us by one of the gentlemen present. Major Reybold's home flock consists, we are informed, of about 600, and as many more divided about among his different farms. We are informed that out of ten shearers, six were grown up sons of the Major, all married men except the youngest, who certainly deserves to be. Our friend describes the whole scene as one of the most patriarchal and interesting he ever witnessed; and Major Reybold's whole farm, dairy and agricultural arrangements, as in the highest good taste and prosperity. The fine mutton of Mr. R. has been long celebrated. His great clip of long wool, we should think, under the present tariff, will bring him handsome prices, and be admirably calculated for the manufacture of mouslin de lains and cambric purposes. Success to him and the agricultural spirit now pervading Delaware.

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Stoop a little.—The following story related by Dr. Franklin in a letter to Dr. Mather, has been often told, and is well worth telling again:

"The last time I saw your father," says Dr. Franklin, "was in 1724. In taking my leave, he showed me a short way out of the house, through a narrow passage, which was crossed by a beam over head. We were still talking as I withdrew, he accompanying me behind, and I turning towards him, he said hastily, '*Stoop! stoop!*' I did not understand him till I felt my head hit against the beam. He was a man who never missed an occasion of giving instruction, and upon this he said to me, 'You are young, and have the world before you: *stoop a little* as you go through it, and you will avoid many hard thumps.' This advice, thus beat into my head, has frequently been of use to me; and I often think of it when I see pride mortified, and misfortunes brought upon people by carrying their heads too high."

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## Tabular Estimate of Crops for 1843.

Among the many highly interesting statements brought together in his recent Report, by the good judgment and industry of the Commissioner of Patents, we find the following tables which give at one view, the population of the respective States, and their productiveness in the necessaries, and some of the luxuries of life. Every farmer is conversant with his own grain fields, his meadows, and his granaries;—it is a gratification to be able to estimate also, the products of his particular neighbourhood, or county, or State; and a still more extended inquiry which embraces the whole Union, is often presented to the reflecting mind of the agriculturist, which we have thought it would be convenient for him to be able to recur to in the Cabinet.

These estimates have been made with great care, and rely for their correctness upon numerous sources of information, which the Commissioner has sought out, and made subservient to his purpose. It will be observed, that while our own State is second in population, she is obliged to yield to Ohio and New York, in the quantity of wheat produced: and in Indian corn, the great staple crop of the country, she stands twelfth on the list, in an aggregate of nearly five hundred millions of bushels. It is not a little singular, that New York is second only to Louisiana, in the production of sugar, and that Vermont shows a yield of upwards of three millions of pounds, the fifth in largeness of amount! In Cotton, Georgia takes the lead—Kentucky in Tobacco,—while in Flax and Hemp, Virginia is first.

"Taken as a whole, through the planting, growing, and harvest periods, the season of 1843, was perhaps not so favourable as that of 1842." There is, however, compared with the estimate for 1842, an increase of more than 50,000,000 of bushels in the crop of corn, while in that of wheat, we find a diminution of some 2,000,000 of bushels. In potatoes, there was, as we all know, a great falling off.

In the great variety of soil and of climate, which the extent of our country affords us, connected with the different manner in which, in different districts we are accustomed to have our wants supplied, we have under a beneficent Providence, a strong guaranty that the fluctuations of the seasons, and the failure of particular crops in particular localities, will yet not deprive us, to any very inconvenient extent, of an abundant supply of every thing which our daily wants require. Our garners overflow with the good things of life, the fruits of our own industry; and thus may we be shown, that He who "giveth us all things richly to enjoy," hath wisely ordered, that in more ways than one, "the diligent hand maketh rich."—Ed.

TABULAR ESTIMATE OF THE CROPS FOR 1843.

| *State or Territory.* | *Population in 1840.* | *Present estimated popu'n.* | *Wheat.* | *Barley.* | *Oats.* | *Rye.* | *Buckwheat.* | *Indian corn.* |
|---|---|---|---|---|---|---|---|---|
| | | | *Bushels.* | *Bushels.* | *Bushels.* | *Bushels.* | *Bushels.* | *Bushels.* |
| Maine - - - - | 501,973 | 542,145 | 785,484 | 273,554 | 1,138,007 | 159,672 | 62,568 | 1,390,799 |
| New Hampshire - - | 284,574 | 288,170 | 534,782 | 111,643 | 1,470,663 | 378,209 | 140,180 | 330,925 |
| Massachusetts - - | 737,699 | 786,815 | 190,726 | 134,655 | 1,468,361 | 600,239 | 107,583 | 2,347,451 |
| Rhode Island - - | 108,830 | 113,482 | 3,376 | 51,959 | 190,303 | 44,617 | 3,845 | 578,720 |
| Connecticut - - - | 309,978 | 314,902 | 94,622 | 26,495 | 1,424,444 | 934,234 | 387,463 | 1,926,458 |
| Vermont - - - | 291,948 | 295,862 | 620,695 | 46,250 | 2,721,374 | 278,709 | 229,053 | 1,252,853 |
| New York - - - | 2,428,921 | 2,643,095 | 12,479,499 | 1,802,982 | 24,907,553 | 3,677,222 | 2,398,354 | 15,574,590 |
| New Jersey - - - | 373,306 | 394,298 | 971,727 | 9,733 | 3,286,438 | 2,335,987 | 682,235 | 5,805,121 |
| Pennsylvania - - | 1,724,033 | 1,874,353 | 12,215,230 | 150,398 | 19,826,938 | 9,429,637 | 2,408,508 | 15,857,431 |
| Delaware - - - | 78,085 | 78,417 | 333,197 | 4,508 | 826,819 | 42,486 | 11,560 | 2,739,982 |
| Maryland - - - | 470,019 | 479,197 | 3,391,535 | 3,246 | 2,817,200 | 779,836 | 94,046 | 6,205,282 |
| Virginia - - - | 1,239,797 | 1,251,153 | 9,004,359 | 89,317 | 12,879,878 | 1,249,329 | 360,635 | 45,836,788 |
| North Carolina - - | 753,419 | 759,591 | 2,237,661 | 3,808 | 4,858,989 | 243,218 | 21,378 | 27,916,077 |
| South Carolina - - | 594,398 | 800,182 | 1,326,974 | 3,686 | 1,744,198 | 56,848 | — | 18,190,913 |
| Georgia - - - | 691,392 | 841,580 | 2,463,771 | 12,346 | 1,586,797 | 75,578 | 588 | 26,960,687 |
| Alabama - - - | 590,756 | 703,236 | 906,909 | 7,942 | 1,736,038 | 68,442 | 72 | 24,817,089 |
| Mississippi - - - | 375,651 | 511,263 | 429,384 | 1,894 | 983,228 | 15,492 | 94 | 9,386,399 |
| Louisiana - - - | 352,411 | 407,723 | — | — | 126,583 | 2,193 | — | 8,957,392 |
| Tennessee - - - | 829,210 | 888,130 | 6,317,254 | 4,567 | 9,224,053 | 381,164 | 22,620 | 67,838,477 |
| Kentucky - - - | 779,828 | 816,592 | 4,674,845 | 14,601 | 9,918,881 | 2,106,469 | 11,618 | 59,355,156 |
| Ohio - - - - | 1,519,467 | 1,756,091 | 18,786,705 | 181,833 | 16,313,403 | 934,440 | 659,695 | 38,651,128 |
| Indiana - - - | 685,866 | 822,598 | 7,225,566 | 28,862 | 9,268,337 | 199,755 | 61,115 | 36,677,171 |
| Illinois - - - | 476,183 | 692,653 | 4,829,182 | 84,033 | 8,639,231 | 124,237 | 79,326 | 32,760,434 |
| Missouri - - - | 383,102 | 481,598 | 1,089,777 | 9,583 | 3,643,933 | 71,709 | 16,815 | 27,148,608 |
| Arkansas - - - | 97,574 | 124,446 | 2,986,705 | 878 | 344,717 | 9,465 | 140 | 8,754,204 |
| Michigan - - - | 212,267 | 284,395 | 5,296,271 | 143,757 | 3,210,716 | 64,195 | 167,212 | 3,592,482 |
| Florida - - - | 54,477 | 62,373 | 686 | 50 | 14,919 | 361 | — | 838,667 |
| Wisconsin - - - | 30,945 | 49,521 | 606,740 | 16,324 | 833,247 | 3,689 | 20,455 | 750,775 |
| Iowa - - - - | 43,112 | 69,478 | 495,611 | 1,505 | 474,856 | 7,360 | 11,906 | 2,128,416 |
| District of Columbia | 43,712 | 50,244 | 11,583 | 312 | 13,862 | 5,479 | 346 | 47,837 |
| | 17,069,453 | 19,183,583 | 100,310,856 | 3,220,721 | 145,929,966 | 24,280,271 | 7,959,410 | 494,618,306 |

## TABULAR ESTIMATE OF THE CROPS FOR 1843.

| State or Territory. | Potatoes. | Hay. | Flax and Hemp. | Tobacco. | Cotton. | Rice. | Silk. | Sugar. | Wine. |
|---|---|---|---|---|---|---|---|---|---|
| | Bushels. | Tons. | Pounds. | Pounds. | Pounds. | Pounds. | Pounds. | Pounds. | Gallons. |
| Maine | 10,253,531 | 1,000,923 | 3,874 | 78 | – | — | 680 | 151,458 | 2,392 |
| New Hampshire | 6,191,071 | 547,842 | 23,379 | 277 | – | — | 880 | 102,497 | 101 |
| Massachusetts | 4,175,251 | 829,987 | 832 | 93,891 | – | — | 30,153 | 282,648 | 209 |
| Rhode Island | 902,387 | 54,300 | 93½ | 481 | – | — | 912 | 30 | 785 |
| Connecticut | 2,822,295 | 602,906 | 4,248 | 601,282 | – | — | 140,971 | 31,220 | 1,923 |
| Vermont | 8,209,571 | 1,100,737 | 29½ | 742 | – | — | 7,194 | 3,075,447 | 109 |
| New York | 26,553,612 | 4,295,536 | 1,947 | 1,052 | – | — | 5,238 | 6,934,616 | 5,554 |
| New Jersey | 2,426,457 | 359,452 | 1,235 | 2,840 | – | — | 4,166 | 39 | 9,398 |
| Pennsylvania | 9,161,409 | 1,899,128 | 3,527 | 441,944 | – | — | 26,482 | 878,730 | 18,983 |
| Delaware | 257,911 | 20,338 | 65 | 381 | – | — | 3,586 | — | 273 |
| Maryland | 908,330 | 106,270 | 615½ | 20,775,702 | 7,677 | — | 6,829 | — | 7,124 |
| Virginia | 3,132,243 | 466,482 | 31,728 | 41,918,040 | 3,353,756 | 3,084 | 6,180 | 938,457 | 13,045 |
| North Carolina | 4,517,863 | 141,436 | 13,569 | 14,548,785 | 46,934,276 | 3,324,066 | 6,443 | 5,376 | 37,347 |
| South Carolina | 3,918,405 | 29,864 | – | 50,254 | 55,219,697 | 66,892,807 | 5,546 | 18,962 | 672 |
| Georgia | 2,408,623 | 20,731 | 14 | 130,201 | 185,758,138 | 14,019,250 | 6,134 | 224,395 | 8,961 |
| Alabama | 1,749,057 | 20,136 | 7½ | 248,177 | 112,020,112 | 166,581 | 5,743 | 7,081 | 355 |
| Mississippi | 2,814,929 | 877 | 25¾ | 140,855 | 162,664,350 | 953,654 | 223 | 87 | 17 |
| Louisiana | 1,311,700 | 32,390 | – | 111,057 | 128,912,253 | 3,920,490 | 1,055 | 97,173,590 | 2,601 |
| Tennessee | 1,864,636 | 50,516 | 4,399 | 29,335,868 | 32,938,410 | 8,700 | 20,072 | 368,203 | 696 |
| Kentucky | 1,246,469 | 136,926 | 9,508 | 52,322,543 | 737,684 | 17,062 | 4,733 | 1,957,858 | 1,838 |
| Ohio | 6,462,248 | 1,407,510 | 12,664 | 5,991,296 | – | — | 25,202 | 5,850,558 | 14,597 |
| Indiana | 2,858,746 | 1,621,606 | 12,150 | 2,899,844 | 168 | — | 840 | 5,892,405 | 11,432 |
| Illinois | 3,867,661 | 280,383 | 2,879 | 965,260 | 214,007 | 732 | 3,400 | 412,363 | 794 |
| Missouri | 1,213,984 | 74,966 | 30.300 | 14,700,089 | 149,889 | — | 210 | 317,376 | 34 |
| Arkansas | 5,34,260 | 880 | 1,977 | 216,508 | 11,520,467 | 6,612 | 217 | 2,111 | |
| Michigan | 4,465,871 | 223,827 | 1,280 | 3,187 | – | — | 1,395 | 1,307,629 | |
| Florida | 373,806 | 1,561 | 3 | 155,509 | 7,229,206 | 566,107 | 415 | 249,322 | |
| Wisconsin | 710,607 | 61,965 | 4 | 425 | – | — | 28 | 162,034 | |
| Iowa | 390,765 | 28,599 | 654 | 13,271 | – | — | — | 55,899 | |
| District of Columbia | 52,435 | 1,733 | – | 61,715 | – | — | 1,038 | | |
| | 105,756,133 | 15,419,807 | 161,907¾ | 185,731,554 | 747,660,090 | 89,879,145 | 315,965 | 126,400,310 | 139,240 |

## Lime for Plum Trees.

Professor Cleveland, of Bowdoin College, in Maine, says in a note to the "Boston Cultivator," that "previous to 1841, several of my plum trees had been so attacked by the *curculio*, that I scarcely obtained a ripe plum. Early in the spring of that year, as soon as the blossom buds began to swell, I removed the soil around the tree to the depth of two or three inches, and as far on all sides as the limbs extended. I then deposited in the opening a layer of lime, recently slacked and still warm, about half an inch in thickness. The soil was immediately restored to its place over the lime, and closely pressed down upon it. I had an abundant crop of well ripened plums. In the spring of 1842, I again applied lime in a similar manner, and with the same success.

"In the autumn of that year, it was stated in some agricultural journal, that salt sprinkled around the tree, in sufficient quantities to render the ground *whitish*, would prevent the ravages of the *curculio*. In 1843 I made the experiment. The trees bloomed well, and showed an abundance of fruit; but every plum was attacked by this insect and fell to the ground.

"I ventured to apply lime again the present spring; and if I obtain a good crop of plums, my confidence in this remedy will be strong."

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For the Farmers' Cabinet.

## Some things that do not look well.

When I saw the substance of the following paragraphs in the Prairie Farmer, I felt more than half inclined to be out of humour with its editors. Parts of them touched me so closely, that I concluded at once, some of my neighbours had been to Chicago, and *told* of me, and had got the piece inserted just to vex me. Let, however, "him laugh who wins." Instead of being annoyed, though touched in a sore place, I have made up my mind, not only to try to reform myself in those particulars, but also to give the readers of the Cabinet an opportunity to profit by them. Q.

It does not look well to let the garden grow up to weeds, and then say that a garden is good for nothing.

It does not look well to have the gate without hinges, held up by a prop, leaving at the bottom an aperture through which some hog with a convenient nose can rub, and so slip around into the garden.

It does not look well for a man to thump and abuse his horses or oxen, just to try his whip; or to suffer his boys to do so.

It does not look well to keep the horse in a stable not cleaned, till his hind feet are 45 degrees higher than his fore feet, so that he is obliged to rear up to get himself on a level every time he wishes to swallow a little hay or oats.

It does not look well to have the women hang out the clothes on rough and thorny bushes, and tear them in getting them off, when a neat line would save that trouble.

It does not look well for a man to keep a dog, when he can keep no cow or pig; and for no purpose but to worry the neighbours' cattle, and annoy the neighbourhood with continual barking.

It does not look well for any body's daughters to walk the streets in kid slips in December, and lace themselves so cruelly that their voices waste away, and their cheeks turn to the colour of moon-light.

*The following may also be found in the same excellent paper.*

I have seen a farmer cut down thrifty saplings in his door-yard, and then set out others in their place, that would require ten years' growth ere they would present the same beautiful appearance.

I have seen farmers that would carry their produce fifty miles to market, when they could sell it at their own doors for the same price.

I have seen many farmers that would drink slough water and have the ague six months, when four days labour would dig a good well.

I have seen farmers' daughters that were "*very accomplished*" in every thing, except carding, spinning, weaving, knitting, churning, making cheese, cooking, &c.

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Watering Fruit Trees.—There is great danger in over-watering. The newly transplanted tree will generally, from its innate vigor, push its leaves well, and until they are fully expanded, retain their freshness: *then*, they call for a greater supply of moisture than the atmosphere usually furnishes, and in such case copious watering of the roots is usually resorted to, which excites them to overaction, followed, of course, by a corresponding debility. The proper way is to water over the top two or three times a day, with a watering-pot or syringe.—*Western Farmer and Gardener.*

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Cellars, Outhouses, &c.—Clean out your cellars, and white-wash the walls, and be sure, if you have not done so already, to white-wash your outhouses, garden fences, &c. Such things add to the neatness and beauty of the Homestead, as well as to the health of those inhabiting it. If farmers could hear the commendations bestowed by travellers upon the proprietors of farms, where these matters are attended to, but few would neglect them.—*Am. Farmer.*

## Manures.

There is one thing settled in farming, stable manure never fails. It always tells. There are no two ways about it. There is here neither theory, nor speculation, nor doubt, nor misgiving. "Muck it well, master, and it will come right," is an old proverb. It is considered a fact so well established, that nobody thinks of disputing it. There is advantage in asking why barnyard manure never fails. The answer is easy. It contains all that plants need for their growth. If we know then what plants contain, we can easily tell what is in manure. The whole doctrine of manures, then, falls into two plain principles, on which hang all the law and the "*profits*" of agriculture.

1. Plants contain and need certain substances which are essential to their growth.

2. Manure contains all those substances which plants want. If, then, we would find out what it is which manure contains, that makes plants grow, we must find out what a grown plant contains. This cannot be done without some little, a very little knowledge of chemistry. Do not be startled, reader, I suppose that you may know nothing of chemistry, no, not even its terms. As a very sensible man, who wrote letters on Botany, to a young lady, said, to encourage his pupil, it was possible to be a very good Botanist without knowing one plant by name, so is it possible to become a very good agricultural chemist, without knowing little more than the chemical names of a very few substances. You know nothing of chemistry it may be, and as little of law; yet you will go to law, and learn some of its terms by a dear-bought experience. The law terms are harder to learn than the chemical terms. Now I fear that some persons who have followed me thus far, will shut up the book. It is, say they, all stuff, book-farming, and beyond us. If one may not understand what manure is without this learning, we may as well begin where our fathers ended, and that was where our forefathers began ages ago. By a little law, however, picked up as a juryman, or witness, selectman, town-clerk, justice of the peace, yea, perhaps, hearing an indictment read, men do come to understand what a lawyer means when he talks. So, too, by a little chemical talk, a man may learn what a chemist means when he talks of oxygen, hydrogen, nitrogen, chlorine, and carbon; potash, soda, lime,—ah, these are old friends, the very names make us feel at home again, —alumina, magnesia, iron, manganese, and silex, sulphur, and phosphorus. Here is a long list. Long as it is, perhaps it will be thought worth learning, when you are told that these are the names of all the substances found in plants, every substance which they want. Out of these is made every plant. Every part of every plant, from the hyssop on the wall to the mountain cedar, contains some or all of these. Be not disheartened. Look over, reader, the list again carefully; see how many are old names of things which you know. Of the fifteen, you know nearly one half by name and by nature. These are potash, soda, lime, magnesia, iron, sulphur. Perhaps you will add, that you know carbon is coal, or rather coal is carbon. You have heard from some travelling lecturer at your town Lyceum, that oxygen and hydrogen together, form water. That oxygen and nitrogen form the air we breathe; that nitrogen and hydrogen form ammonia, or sal volatile, which gives the sharp smell to the smelling-bottle. Besides, the thing has been said so often, that you must have heard it, that chlorine, the substance which bleaches in bleaching salts, united to soda, makes common salt; or if chlorine is united to ammonia, sal ammoniac is formed. Now by changes and combinations among these fifteen things, nature makes everything we find in plants. Many of these are invisible as is the air. The substance called chlorine, perhaps you have never seen, but if you ever smelt it you will never forget it. It is often smelt in a piece of bleached cotton, when opened in the shops. It gives the smell to bleaching powder used to disinfect the air, during cholera and other diseases. If you could see it, it would appear merely a faint yellowish green air. It is all-powerful on vegetation. As it forms a part of common salt, say half of its weight, we may dismiss the further consideration of it, by saying, that, in some shape or other, chlorine is universally diffused in soil and plants.

S. L. Dana.

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## French Churn.

In a late number of Johnston's Lectures, mention is made of a *French Churn*, which is made of tin, of a barrel shape, and is placed in a trough of water, heated or otherwise, to convey the proper temperature to the cream. Many experiments have been tried to ascertain this temperature, and it was found that for churning cream in this churn, about 56° Fahrenheit, produced the best quality of butter in the shortest time—the time required being from ten to twenty minutes. At 60° the butter would come in five or seven minutes, but it was soft.

From the Cultivator

## Culture of the Grape.

The advantages that would be derived not only in an individual, but a national point of view, from a greatly increased culture of all our choice fruits, is not fully appreciated. The large quantity of animal food consumed by all classes in this country, renders the antiseptic and diluent properties of fruits in temperate and tropical climates, absolutely necessary to the promotion and preservation of health. The alarming increase of diseases of the heart, apoplexy, palsy, obstructions of the liver, lungs, and other vital organs, and the rapid progress and violence of the inflammations consequent upon these obstructions, are directly or indirectly connected with and dependent upon a plethoric or overloaded condition of the blood vessels; a state of the system, which a free use of ripe fruits and vegetables is best calculated to prevent and correct. The object to be obtained in this case, is too manifest and striking to require any enforcement from argument. Physicians, however they may differ in opinion on some subjects, agree on this, that the free use of good ripe fruits, such as the grape, the apple, peach, &c., &c., is well calculated to promote and preserve a healthy state of the human system. We have therefore, not only pecuniary inducements to cover our fields and the banks of our rivers with the choicest fruits, to delight the eye and gratify the taste, but a far higher object, the promotion of the health and happiness of our fellow creatures.

Notwithstanding all the efforts that have been made for a number of years past, to advance the culture of the grape and some other fruits,—and the success has been very encouraging—there does not appear to be any probability of overstocking the markets of the large cities on the seaboard, for a quarter of a century to come. Indeed, if still greater efforts are not made, and far more land employed than has been for these purpo-es for many years past, the growth of the cities will be greater than the growth of the fruit; added to which, rail-roads and steam have opened many new markets, and will continue to do so for years to come.

The farmers in the interior and to the west, owing to their cheap alluvial soils, find it to their interest to supply us with large quantities of grain and less perishable articles than fruits; and the owners of far more costly land near our large cities and rail-roads, would find it greatly to their advantage to turn their attention more to the productions of the garden, the vineyard and the orchard, than they have heretofore done. The grape, from its arriving at the bearing state so soon, and continuing to produce a bountiful crop every year when well cultivated, for an almost indefinite period of time, possesses advantages over every other fruit with which I am acquainted; and hence, of late I have given it a decided preference on my place at Croton Point. As fast as my peach orchards fail or show symptoms of decay, if the ground is suitable, I occupy it with the grape. A bank well covered with good plants of the Isabella grape, properly and carefully cultivated, will, I am fully persuaded, give larger and more certain dividends, in proportion to the amount of capital invested, than any other bank in the State. Then the enjoyment which the management of a vineyard will afford, the general reader may have formed some idea of, from the perusal of the pages of sacred and profane history, but can never fully realize till, while cutting the tender shoots with his own hand, he inhales the delightful perfume of the delicate blossom of the vine; and when at the wane of the season, he clips the large, well filled clusters from the branches, enrapturing the eye, the taste, and the smell, then it is that he can comprehend the reason why the grape has been made the theme of the poet, philosopher and divine, in every age of the world.

Yours truly,

R. T. Underhill.

New York, Feb. 17th, 1844.

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For the Farmers' Cabinet.

## Saxony Sheep, *versus* Southdowns.

Mr. Editor,—Why are not Saxony sheep more sought after and appreciated? Their wool is incomparably finer than that of the Southdowns. The latter being a large showy sheep, with a good large fleece of wool, are certainly very tempting to the purchaser; and for ordinary wear, their wool is abundantly fine; but those who have Southdown sheep, are as good customers for imported cloths as are those who have only the very coarsest woolled sheep; thereby admitting the unfitness of Southdown wool for better clothing. But is the purchasing of imported cloths American farmer-like? Might not a farmer as well habitually buy his flour as his cloth? or if he thinks the manufacturers charge too much for making cloth, why not say the same of millers for manufacturing flour? There is certainly as much competition in the former as in the latter business. Again, if the Southdown sheep are larger than the Saxony, they also

require more food to keep them in similar condition. Moreover, mutton is and should be but a minor consideration in the raising of sheep; undoubtedly the wool is the great object; and if the Southdowns do produce a pound or two more wool,—and that is the maximum difference—yet their whole fleece is not worth more than three-quarters as much as a Saxony fleece is worth. And I contend that Saxony wool and mutton can be produced as cheaply as any other kind, and being finer and worth more per pound, than any other, it undoubtedly is the most profitable kind of sheep, farmers can have. But farmers say wool is too low to be produced for sale; that the price does not pay for production. In answer to that I say, that neither has the price of wheat for the last four years, paid for the labour and expense of production; but farmers cannot quit their business and do nothing, they will have to be satisfied with a very small return for their labour, and hope for better times. But if they do not produce wool for sale, let them at least not buy their cloth; for low as imported cloth is, they can raise Saxony wool and get it manufactured into cloth at least thirty per cent. cheaper than they can buy imported cloth of similar fineness and body.

Rusticus.

Strasburg, Pa.

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## General Character, Position and Extent of the Great Carolinian Bed of Marl.

This bed extends from east of the Santee far across the Savannah. Its western limit may perhaps be marked by a line running five and twenty, or thirty miles below the falls of those rivers; eastwardly, it stretches to the ocean, and runs in fact beneath it.—Ed.

Throughout the whole extent of this great deposite, and not only within the bounds of South Carolina, but also in the adjacent parts of North Carolina and Georgia, where I have seen parts of its extension, there is a remarkable uniformity of texture, colour, general appearance and qualities manifest to the senses, and also of chemical composition. In these respects, throughout the vast surface and depth of this bed, there is less variation of appearance and quality than is always found in the different exposures of Virginia in the same neighbourhood, and even in the same excavation. Still there are minor and well marked differences, belonging to different localities, and also to different depths in this formation, which will be stated as each shall come under consideration.

In general, and with but few exceptions, this marl, as seen in the bed, is of a dingy, yellowish white colour, or pale buff, of different shades. The exceptions, showing the greatest departure from this general character, in some cases are parts almost white, and others of brown, coloured by ferruginous matter. Sometimes a dull greenish tint is added to the ordinary shades. The texture is close and firm, and the fracture something like that of chalk; though the mass is generally softer, and in some few cases more indurated, or approaching to stony, than of true chalk. The fossil remains are very few, except in some particular localities; and even there not of many species, and mostly very imperfectly preserved. Indeed, except a few of the oyster family, and others as remarkable for hardness, the shells have been almost entirely dissolved or disintegrated, leaving however, in some cases their forms in perfect casts of the firm marl, which had filled their hollows as well as enveloped them closely around. But so few are the fossils altogether, compared to the great extent of marl already exposed, and which was wholly formed by shells originally, that it is not surprising that many persons to whom such localities had been longest known, had not observed the existence of any such remains, and that but few others, either from that or any other indication, had ever suspected the earth to be calcareous. The general appearance to the eye, or to ordinary loose observation, is that of a poor clay, very largely mixed with silicious sand; though in fact there is usually but a very small proportion of sand.

Whether the marl is hard or soft, it breaks into lumps, or crumbles more or less as it is dug. However moist in its bed, it is not plastic like fine clay, or yielding in the manner of moist clay to the blows of the digging utensils, but rather as firm sandy earth, and the hardest marl as very soft sand stone, or very compact and dry clay.

The proportion of pure carbonate of lime in this marl, for much the larger number of exposures yet seen, and of many analyses made,—varies from fifty-five to eighty-five per cent.; and more of others rise above ninety than fall below fifty per cent. This is a degree of richness, compared to the marls of other regions, as remarkable as is the great extent of this bed. The ingredients of the marl, other than the carbonate of lime, are mostly fine clay and silicious sand, coloured by oxide of iron. No magnesia has been found. In many specimens there is a very small proportion of greensand, which alone may be considered as of any notable fertilizing value in addition to

the main and important ingredient, carbonate of lime.*

In some particular localities I have found green-sand forming so large an ingredient of this marl, that it must add a very important value to the marl as manure. And it is most probable that deeper excavations will show still richer and more abundant exposures of green-sand mixed with the calcareous marl, than I have yet been able to find. While I hold the green-sand to be of inferior importance by far to the calcareous ingredient, still it is certainly, as an addition thereto, of very great agricultural value, however little is understood of the cause and manner of its remarkable and yet uncertain fertilizing action.

The dip, or degradation, of the surface of the great calcareous bed, or its angle with the horizon, is generally from north to south, and does not differ greatly from the general slope of the country, and the consequent courses of the rivers; but is greater than either. This greater general dip of the surface of the marl, or irregularity of surface, is much more marked on the Santee than on the Cooper, and on the Cooper than on the Ashley and those rivers still further south and west, passing through this region. And the entire body lies deeper below the surface of the rivers as we proceed southwestward, in any line parallel with the sea-coast, with some exceptions from this general rule, on and near the Savannah. —*Ruffin's Agricultural Survey of S. C.*

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For the Farmers' Cabinet.

## Irrigation.

Mr. Editor,—It is said, that "Van Helmont planted a willow which weighed 5 lbs., in a pot containing 200 lbs. of earth. This he watered for the space of five years, and at the end of that time the tree was found to weigh 169¼ lbs., while the earth in which it had stood being dried as at first, was found to have lost only two ounces. Here then, was an increase of 164 lbs. weight, and yet the food of the plant had been water only."

If then watering is attended with such great results in the case of a tree, is it not reasonable that in the case of herbage, it is still more important! It is not by any means, at this day contended, that the only food of plants is water; but water generally holds in solution minerals, which are food for plants; and it carries those dissolved minerals to the roots of plants, exactly where they are wanted. Land may have all the necessary minerals and manure, indispensable to plants, and yet in a dry season the grass won't grow;—how important then is irrigation, if only to dissolve those minerals. And where no running permanent stream can be had, it would well repay the farmer for digging an artificial pond at some suitable place, where a considerable body of water could, without much expense, be collected and retained until the time of need, and thus prevent the too rapid running off of the rain water. Mr. Liebig, I think it is, who says that in Germany, lands which have formerly been nearly barren, have been made, by irrigation, very productive. The mode adopted in this country for watering meadows, is considered by many as too expensive; they have consequently ploughed up their meadows and do not water at all. What the mode of watering is in Germany, I do not know, but I would respectfully suggest the use of a wheel mentioned by Dr. Arnott, in his Elements of Physics, by means of which, "streams are caused by their own action, to lift a part of their water into elevated reservoirs." For the purpose of watering meadows, where the streams lie high, a small portable wheel of this kind, of about three feet diameter, would save the labour of making a great many small channels. But where the water is situated low, and is required to be raised a considerable height, "a large water-wheel is placed so that the stream may turn it; and around its circumference buckets are attached, to be filled as they sweep along below, and to be emptied into a reservoir as they pass above, —or instead of buckets, the spokes of the wheel are themselves made hollow and curved, so that as their extremities dip into the water at each revolution, they receive a quantity of it, which runs along them as they rise, and is discharged into a reservoir at the centre. These are called Persian wheels, but they are in common use on the banks of the Nile, and elsewhere."

I would suggest the formation of agricul-

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* The marl of the Great Carolinian bed is not more remarkable for uniformity of character throughout its great extent, than for difference from all the marls of Virginia, numerous and widely differing as are the varieties of the latter. It is enough to say here, that the marls of Virginia are generally much poorer than those of the body described above, the bed is comparatively very thin and limited in extent, and composed for the greatest part of shells and their fragments of more recent formation, (middle tertiary) in good preservation, imbedded in a looser and softer earth, principally and generally of sand. The many varieties of marls known in Virginia, were described at length in a Report to the Board of Agriculture of that State, giving a full "description and account of the different kinds of marls, and of the gypseous earth, of the tide water region of Virginia," which forms part of the "Essay on Calcareous Manures," commencing at page 194.

tural clubs, to make trial of such wheels, and for other improvements. All the expense of such a wheel, defrayed by a club of ten or twenty members, would be so small to each member, in comparison with the great object gained, that the expense would be no objection. A wheel for the purposes of farmers generally, would not cost more than five dollars. I think one made with hollow spokes, decidedly preferable to the other, as not being so liable to get out of order, and I believe much less expensive, though I suppose it would require the wheel to be larger, to raise the water to the same height. Rusticus.

Lancaster, Co., Pa

The foregoing, as well as another article in this No., under the same signature, were written for the Pennsylvania Farmer, which has been discontinued. They were kindly handed over for the Cabinet.—Ed.

## Growth of Cotton.

At the convention at Annapolis, in 1786, Mr. Madison in a conversation with Tench Coxe, concerning the cotton husbandry, remarked that, "from the garden practice in Talbot, and the circumstances of the same kind abounding in Virginia, there was no reason to doubt that the United States would one day become a great cotton producing country." The evidence then existing on this subject, especially the interesting fact, that during our struggle for Independence, Philadelphia had been furnished with native cotton, worth two shillings sterling per pound, enough for the limited home consumption, and the information communicated to General Thomas Proctor, of that city, by Richard Leake, of Georgia, removed all doubt in reference to the practicability of raising the gossypium, as a crop on a large extent of the Atlantic coast. This conviction of the public mind soon insensibly led to the belief, that the United States could also card and spin its fleece, and probably weave it by water power. The result was a mission to Great Britain, at the expense of Tench Coxe, to obtain the machinery, and all the information which it was important the parties should possess. The influence of a manufacturing society, established in Philadelphia, in 1787, and the prevalent opinion, that the raw material might be made a profitable source of revenue, induced Congress, at the first reformation of the tariff, to impose a duty of three cents a pound on foreign cotton, with which the United States were at that time supplied from the West Indies and the Brazils.

That, in 1792, the growth of cotton in this country was unknown to Mr. Jay, or that as a commercial article it was deemed of little value, is obvious from the fact, that, in the treaty negociated by him, it was stipulated, that no cotton should be imported from America. The object of that diplomatist being to secure to the English the carriage of the West India cotton to its market in Europe. This is the reason why the Senate refused to ratify the 12th article of that treaty. In half a century how wonderful has been the revolution effected in the cotton husbandry of the United States! In 1782, the entire crop was 138,328 lbs.; in 1842, 785,221,800 lbs. were produced. The first Provincial Congress in this State, held in January, 1775, recommended to the inhabitants to plant cotton, but their recommendation was almost entirely disregarded. The whole quantity of that commodity, prior to 1795, exported from the United States, was inconsiderable, but in that year it amounted to 6,276,300 lbs.; of this, the proportion contributed by South Carolina was 1,109,653 lbs.

Among the exports of "Charles Town" from November, 1747, to November, 1748, are included seven bags of cotton wool, valued at 3£. 11*s.* 5*d.* per bag. In 1754, "some cotton" was again exported from South Carolina. In 1770, there were shipped to Liverpool, three bales from New York, four bales from Virginia and Maryland, and three bales from North Carolina. Before the Revolutionary war, Virginia exported, *communibus annis*, hemp, flaxseed, and *cotton*, to the value of $8000. In 1784, an American vessel that carried eight bags to Liverpool, was seized on the ground, that *so much cotton could not be the produce of the United States.* In 1785, 14 bags; in 1786, six bags; in 1787, 109 bags; in 1788, 389 bags; 1789, 842 bags; and in 1790, 81 bags were received in Europe from this country: of these, 153 bags were sent directly, and a portion of the remainder by the way of Philadelphia and New York, from Charleston. The first bag of cotton sold in South Carolina, was purchased in 1784, by John Teasdale, from Brian Cape, then a factor in Charleston. The first bag of the wool exported from that city to Liverpool, arrived January 20th, 1785, per Diana, and was consigned to Messrs. J. & J. Teasdale & Co. The exports from 1790, though very much mixed up with foreign cottons, slowly but steadily increased until 1794, when a powerful impetus was given to the cotton culture by the invention of the saw gin by Eli Whitney, of Massachusetts. This ingenious but unfortunate artist, who by his machine doubled the wealth and means of employment of his countrymen, and thereby in an especial manner confer-

red on the plantation States a benefit that can scarcely be estimated in money, was rewarded by South Carolina, North Carolina, and Tennessee only. The first appropriated $50,000 for the use of his invention within her limits; the second laid a tax for five years of 2*s*. 6*d*. upon every saw in every gin that was mounted within its jurisdiction; and the last imposed a tax of 37½ cts. upon every saw, to be continued for four years. Notwithstanding these liberal legislative acts, the inventor derived no pecuniary benefit from his gin. He expended the whole amount received from South Carolina —from the other States he received a mere pittance—in defending himself against arbitrary and vexatious suits, and in prosecutions for violations of his patent right. Over the grave of this distinguished benefactor of the human race, a monument is erected, with this simple but expressive inscription, "The inventor of the saw-gin."—*Seabrook's Memoir on the Cotton Plant.*

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### Corn—Change of Crops.

Corn seems to need change of soil less than any other of the great crops; and the many cases of success with which it has been raised for many years in succession on the same fertile field, have been triumphantly adduced by the opposers of rotation, as a certain and manifest proof that a change of crop is not necessary. Even if this were true, as to this particular plant, it would not affect the general question. The hardiness and vigor of the corn plant on a fine soil, may enable it to withstand the depredations of some of the several tribes of insects which it breeds and nourishes; and others—as the cut-worm, so fatal in other circumstances—may be destroyed by the continued tillage and naked and open state of the soil. But though, by such or other means, land may continue to produce corn in long succession, much better than other crops so continued, still this is not even an exception to the general rule of the necessity for rotation. On the rich alluvial low grounds, subject more or less to freshes, where corn is usually the sole and annually recurring crop, it is true that heavy growths continue to be raised. But it is said, that in the most favourable seasons, there is a considerable proportion of rotten grain, even when not exposed to, or injured by water. These entirely rotten ears are often among the largest, and the product of flourishing stalks; and their unsound state may not be suspected until they are stripped of the enveloping shuck. This, and perhaps other inflictions of such crops, must be caused by the ravages of corn-bred and corn-sustaining insects. Yet this kind of land is not entirely without change of condition. The rank cover of weeds and grass which follows the last tillage of the corn, serves in some measure as a green shading and manuring crop. And even the inundations from freshes, which occur every year, however injurious in other respects, produce such great change of condition, that they may destroy or remove whole tribes of insects.

A stronger confirmation of this general position in regard to corn, I have learned on information from the proprietor of a piece of land in Virginia, with which I am personally acquainted. It is a large field of deep, mellow, light soil, very rich, high and level land, and so peculiarly adapted to the growth of corn, that the proprietor thought fit to keep it under that crop every year. It was so cultivated for thirteen years in succession; peas being planted with every crop, which, with such supplies as were afforded of other manure, maintained the high fertility and product of the land. But though the quantity of corn produced was not perceptibly reduced, the rotten portion,—and rotten without any apparent cause—continued to increase until it reached so large a proportion of the whole product, and the evil was of so regular occurrence, that this peculiar mode of cultivation was from necessity abandoned, and the ordinary previous plan of rotation was resumed.

But besides this important consideration, of certain tribes of destructive insects being sustained by some certain condition, and still more by the increased continued same condition of a field, and destroyed by a thorough change of that condition, such changes are better for the more complete eradication of some of the worst weeds, and still more for the better product of the cultivated crops. Ploughing or stirring the soil, however necessary to be well done while the growth of a crop needs it, is hurtful to general production, if continued year after year, without cessation. Perhaps the growth of all crops may require intervals of rest and consolidation of the soil; and it is certain that some crops, which prefer a soil of firm and close texture,—as clover and wheat,—cannot be as successfully raised upon soils kept long before under tillage and hoed crops.

And while for some purposes of tillage or product, there may be required a partial consolidation of soil, others may be best forwarded by very deep and thorough working. And two crops which are peculiarly favoured by the climate of South Carolina, and which are among the many great blessings of this region, serve admirably for these opposite

purposes. These are field peas and sweet potatoes, which crops, extended as may be their culture already, and great their products, have not yet been duly appreciated in respect to all their benefits.

The pea crop, sown broadcast, is an admirable rest or manure crop—giving shade, moisture, and consolidation to the soil—and serving, by the sudden and great change of condition from any clean tillage crop, to remove or lessen the foulness of land, both of insect and vegetable plagues. Such I have known in my own practice, to be the highly beneficial operation of this crop, even under the much less congenial climate of Virginia; and much better must it serve in South Carolina, where not only are the climate and soil more suitable, but where the want of a crop so operating is far greater.—*Ruffin's Agricultural Survey of South Carolina.*

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### Season for Trimming Trees.

As soon as planting is over, we should look to our apple trees and cut off the surplus branches. We cannot recommend cutting large branches in any case; we usually do more hurt than good, when we take off a limb that is more than two inches in diameter, for the wound will not often heal soon enough to prevent decay at the heart. A tree will sometimes look more thrifty for a time, in consequence of lopping large branches, but the improvement will not be lasting. If trees are attended to annually, there will be no need of cutting large limbs. If they have been long neglected we should content ourselves with trimming out the small limbs, and suffer the tree to continue in the shape that it has already formed.

We may not be able to give any satisfactory reason for preferring May to March, for trimming apple trees. Most farmers however agree, that the sooner the wound is healed the better, and that it is not of service to draw forth much sap at the wound. Now it is certain that a wound never begins to heal till the tree has put forth its leaf. It has no means of making new wood before it has leaves, for the sap that forms the new wood passes through the leaf. From the time of trimming, then, to the forming of the leaf, your wound is exposed to the weather and the process of healing has not commenced.

We find that when a limb is cut in July, there will be about as much new wood made to cover the wound, during the season, as when the limb is cut earlier. There is a critical time, however, in July, between the first and second growth of the season, when the sap will run from a wound and will discolour the bark for a foot or more below it; we notice this in trimming nursery trees, and we think trimming in July is not judicious.

As to the comparative waste of sap in March and May, we call the attention of our readers to the practice of tapping the maple for the purpose of gathering sap. All know that no sap can be gathered in May, and not much in April, in our latitude. Sap runs most freely in March. For this reason we never trim grape vines in March. But after the leaf is formed the vines will not bleed.

You want a fine saw to trim with, to make as smooth a wound as may be, and if a knife is used after the saw, the wound will heal the sooner. Yet we often see trees trimmed with an axe! We also see the bark torn off the limbs by the use of heavy boots by the trimmer. All will own this is barbarous. If you stand on the tree while trimming, you should wear slippers or thin shoes.

When no limbs larger than one inch in diameter are cut, the wound may be expected to heal over in a couple of years; in a thrifty tree it will heal in one year. When only small limbs are cut, there will be no need of covering the wound with clay or with any kind of plaster. We cannot find that limbs which have been grafted and then covered over with any kind of compost, heal faster than limbs uncovered. A limb should always be cut in such a manner as to let no rain water stand in the little cup that will be formed by the healing of the wound.—*Massachusetts Ploughman.*

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From the New England Farmer.

### African Guano.

To the Editor,—

Dear Sir,—I send you a short notice of the above, from a paper by Dr. John Davy, in the April number of the Edinburgh Philosophical Journal. The African guano has been imported into Liverpool, by Mr. Roe, whose son has discovered this new and abundant deposit. It is on an island, a barren rock, on the S. W. coast of Africa, about three miles from the main land. The son of Mr. Roe, was led to look for it, from a notice in the journal of an American whaler, which he read when at school. No rain nor fresh water is found on the island, nor does there appear to be, in fact, any thing except penguins, and a *deposit of guano twenty feet deep, over the whole island*, which is about a mile in circumference. The penguins were so tame that they pecked at the naked feet of Mr. Roe and his companion.

The African guano has the external characters of the South American, and each afforded Dr. Davy as follows:

| *American.* | *African.* | |
|---|---|---|
| 41.2 | 40.2 | —Matter soluble in water, volatile, or destructible by fire, being oxalate of ammonia, diphosphate and muriate of ammonia, and animal matter. |
| 29.0 | 28.2 | —Phosphate of lime and magnesia, little sulphate of lime and sand. |
| 2.8 | 6.4 | —Common salt, sulphate and sesquicarbonate of potash. |
| 19. | 0.0 | —Urate of ammonia. |
| 8. | 25.2 | —Water and carbonate of ammonia. |
| 100. | 100. | |

Your readers will be no less surprised than was Dr. Davy, at finding no *urate* of ammonia in this African guano. It abounds in crystals of *oxalate* of ammonia, but contains no *oxalate* of lime, nor traces of urea. The absence of *urate* of ammonia is very remarkable, as this salt is so very characteristic of the urine of birds, always voided with their excrement. Dr. Davy instituted new analyses of the excrements of several birds, and confirmed the received opinion, that urate of ammonia is always a constituent of bird excrement, whatever may be the food of the bird. Thus, he found urate of ammonia in the common goose, fed on grass; in the pigeon, common fowl, gull, pelican, and white-headed sea eagle. The three last were in the garden of the London Zoological Society; and were fed, the gull wholly, and the others chiefly, on fish. What has, therefore, become of the urate of ammonia, the characteristic of the bird excrement, in the African guano? Dr. Davy thinks, in accordance with Liebig's view, that *uric* acid has changed to *oxalic* acid. He found not a trace of *oxalate of ammonia* in the excrement of the above birds. Time and the oxygen of the air, he thinks, have produced this change. He goes further, and experimentally, by boiling urate of ammonia with oxide of manganese, in a few hours effected a transformation of uric to oxalic acid. Certainly some peculiar influences have controlled the changes in African guano. Without affording more oxalate of ammonia than the American, its urate of ammonia and urea, seem to be replaced by carbonate of ammonia. These are changes unnoticed by Dr. Davy, though the change of urea into carbonate of ammonia, by the addition of the elements of water, is one of the best established facts of modern chemistry. Allowing, then, the African guano to have been originally like the excrement of other birds, some peculiar influences seem to have changed its uric acid, as well as its urea, into carbonate of ammonia. Now, Mr. Editor, so far as this has occurred, it has replaced a fixed, by a very volatile salt, and of course has produced an article more liable to deterioration in proportion to its amount of carbonate of ammonia.

The Liverpool price of the African article is £9, the American about £12 per ton.

S. L. D.

Lowell, May 10th, 1844.

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### Spirit of Rivalry.

The different breeds of live stock, neat cattle, and sheep, have each their partizans; often influenced solely by their own honest preferences and convictions, founded—as they at least persuade themselves—upon experience and observation; and in some cases, it will not be denied, by private interests, a stimulus which is too seldom absent from most of the disputes and contentions in life. Now, if a man should pronounce a preference over all others for the Short-horns, he must expect to be tossed by the Long-horns; if he sides with the Herefords, the Durhams will shake their heads at him; and if he advocates, above all others, the claims of the polled Scotch, the Angus, or the Fife cattle, the West Highlanders will be down upon him with a vengeance. So it is with the South-downs and the Leicesters—meek, quiet, placable animals themselves—who may be seen feeding peaceably together out of the same manger, and lying down without passion in the same pen; but not so their owners and breeders. A spirit of rivalry pervades every department of life. Under due restraints and discipline, it is productive of the most useful results; but it too often blinds the judgment, and becomes fierce and vindictive. We are not satisfied with the undoubted good qualities of what belongs to ourselves; but we resolve upon exposing the defects and faults, whether real or imaginary, of what belongs to our neighbours. It is not enough that our own children are handsome, good-tempered, clever, and accomplished; but we insist upon it that those of our neighbours are ugly, morose, and ill-endowed. Perhaps agriculture presents a more limited field for any ill-natured emulation than almost any other department of life. Here men cannot conceal their discoveries and improvements. Here there cannot be long any monopoly of advantages. Here men perceive how rapidly and widely, improvements and discoveries extend themselves. In the present condition of the world, for a man to pretend to keep any distinguished agricultural improvement to himself, would be very much like his holding up his umbrella before the sun,

so that it might not shine upon other people. All he can be sure of, in this case, is to keep himself in the dark. A liberal and intelligent mind perceives at once, that the light which his knowledge or improvements shed upon others, is always reflected back upon himself.—*Colman's Agricultural Tour.*

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**Observations on the Action of Calcareous Manures, and their Practical Application and Effects.**

Previous to the commencement of my examination of the marls of South Carolina, there had been but very few attempts to profit by their application as manure. It would be both a needless and ungrateful task to inquire into the causes of this strange and general neglect of such wide spread and easily available resources for fertility and riches—and of disregard and ignorance of truths generally known and acted upon in other regions far less blessed in these resources, and in the capability of profiting by their use, than lower South Carolina. It is enough here to state, that such was the general neglect of calcareous manures, and general want of efficient information as to their value. Many individuals, indeed, had made very small and mostly improper applications of marl, and a few of lime, and which were as loose and inaccurate as experiments, as they were ill-directed to obtain the best results as manure. And a few individuals presented more marked and meritorious exceptions, in having within the last few years made much larger applications, and having reaped more or less appreciable and admitted profits therefrom. Among these, the oldest or the largest operators, and, as they deemed themselves, also successful marlers, besides those already mentioned, were Mr. Darby, of Orangeburgh, Dr. J. S. Palmer and Col. S. J. Palmer, of Charleston district, Dr. Robert Gourdin, of Georgetown district, and Gen. James H. Hammond, of Silver Bluff, Barnwell. Reports of the applications of the four last named gentlemen have been recently published, and their favourable results stated. But the total amount of these, added to all other applications of marl and lime made in South Carolina previously to 1843, it is believed, fell short of 500 acres. It would furnish an interesting and most useful statistical document, if the legislature would hereafter require the extent of each planter's applications of marl and lime, for every successive year, to be ascertained and recorded by the tax collectors; and, a few years hence, also the then and thereafter estimated increased product of the improvements thereby made. Such statements, continued, and published regularly year after year, would exhibit an amount of newly directed labour, and of newly created agricultural wealth, beyond any present conception of the effects; and the exhibition would stimulate the further exertion and increase, more than any other possible mode of conveying instruction, or of urging the propriety and profit of using calcareous manures. Nearly all of the few applications of marl, or of lime, which have heretofore been made, have failed of early or satisfactory effect, or for so long as observed for effects, because of the improper mode of application; which was as usual, with putrescent manures, by burying the marl under the "list," and thereby avoiding, and indeed *preventing* all intermixture of the manure with the soil, which is essential to its operation.

Considering the great variations and degrees of fertility of cultivated soils, and the important bearing of such differences on the profits of the cultivators, it is strange that so little attention has been given to the causes, or of care to avoid the worst and obtain the best effects. Every proprietor knows, that the profit of cultivation is much greater on rich than on poor ground. But very few have estimated *how much* greater is the profit; and nowhere, within the sphere of my observation, are the prices of lands properly graduated, in proportion to their fertility and true productive value. If properly estimated, it would be manifest that poor land, for cultivation, if to remain poor, would be dear as a gift, and its cultivation the most costly of all. Yet, the greater number of cultivators of such soils, are content to remain in that condition, without making an effort, and scarcely indulging a hope of improving their fields and their profits.

It is not the less remarkable, that the more sanguine and enterprizing cultivators, who aim and hope to improve, seldom inquire into the causes and manner of the operation designed, and therefore, most naturally, seldom succeed in their design. To apply the ordinary putrescent manure, is generally the sole means attempted or thought of; and if on poor and bad soils, in the race between exhaustion and new fertilization, the latter is invariably left far behind.

It is a universally acknowledged truth, that what is needed to make soil most productive, are such ingredients as will supply, in sufficient abundance, the *food of plants.* Growing plants draw from the soil by their roots, and are nourished by the dissolved parts of nearly all putrescent matters, either

vegetable or animal, or mixtures of both. The ordinary manures are precisely such substances; and sooner or later, by their gradual decomposition, are converted almost entirely to the food of plants, and if judiciously applied, are consumed by, and help to sustain, the growing crops.

But it is not enough, by a great deal, that manures serving to form food for plants, shall be given to the soil. There are other conditions necessary for their profitable and best effects; and the most important of these conditions is, that the soil shall be so constituted as to preserve the putrescent matters from waste and profitless dissipation, and to give them wholly for the support and growth of plants. This condition is furnished by nature, in well constituted soils only, which present the most productive and durable lands under tillage. Without this constitution, all the supplies of putrescent manures which can be given to a farm, will be of little profit; and if derived from its own resources only, will be utterly insufficient to preserve, and still less to increase, the yearly measure of productiveness of the land.—*Ruffin's Ag. Survey of S. C.*

## English Capital.

A MARKED distinction between the condition of the proprietors of the soil here and with us, is in the amount of capital existing here. It is absolutely enormous; and almost distances the system of enumeration which we are taught at our common schools. Let me mention some facts which have been stated to me on credible authority; and let me premise that a pound sterling is about equal to five dollars United States currency. Under a law of the present government, here, levying a tax upon every man's income, when it exceeds one hundred and fifty pounds sterling a year, persons liable to taxation are required to make a just return of their income under a heavy penalty. A confectioner, in London, returned, as his annual income, the sum of thirty thousand pounds sterling, or one hundred and fifty thousand dollars, or, six times as much as the salary of the President of the United States; which showed, at least, how skilful he was in compounding some of the sweets of life. A nobleman, it is said, has contracted with a master builder to erect for him, in London, four thousand—not forty—not four hundred—but four thousand houses of a good size for occupation. In some of the best parts of London, acres of land, vast squares, are occupied with large and elegant dwelling houses, paying heavy rents, in long rows, blocks, and crescents, and all belonging to some single individual. One nobleman, whose magnificent estate was left to him by his father, encumbered with a debt of some hundred thousand pounds, by *limiting*, as it is termed here, his own annual expenditure to thirty thousand pounds, has well nigh extinguished this debt, and, in all human probability, will soon have his patrimonial estate free of encumbrance. The incomes of some of the rich men in the country, amount to twenty, twenty-five, fifty, one hundred thousand, two hundred thousand pounds sterling—even three hundred thousand pounds annually. It is very difficult for New England men even to conceive of such wealth. A farmer in Lincolnshire, told me that the crop of wheat grown upon his farm one year, was eighteen thousand bushels. The rent annually paid by one farmer in Northumberland, or the Lothians, exceeded seven thousand pounds, or, thirty-five thousand dollars. These facts, which have been stated to me by gentlemen in whose veracity I have entire confidence, and who certainly are incapable of attempting any "tricks upon travellers," show the enormous masses of wealth which are here accumulated. A gentleman of distinguished talents and fine classical attainments, and who adds to them a public spirit in agricultural improvement, worthy of his education and his high standing in the community, has recently added to his property, by the purchase of lands, to the amount of two hundred thousand pounds sterling, that is, a million of dollars; and his estate, now in cultivation, and under his own personal inspection, and, with the exception of about four hundred acres, lying in one body, amounts to six thousand acres. Another gentleman of high rank, in respect to whom and to whose amiable family I have a constant struggle to restrain the open expression of my grateful sense of their kindness, and who, an example here not uncommon, to an extraordinary brilliancy of talent and an accomplished education, unites the most active spirit of agricultural improvement, has, though not all in his immediate occupation, yet all under his immediate supervision, a tract of more than twelve thousand acres, in a course of systematic cultivation or gradual improvement.*

* I mention these examples—to which, from my own knowledge, I might add many others—*in the form* I *do*, for the purpose, by the way of showing my American friends, that agriculture here takes its proper rank among the liberal professions, and that not merely as a recreation, but as a business; and in all its minute and practical details, it is not deemed incompatible with the highest distinctions of talent, education, and

The income of a single nobleman, from his coal mines, exceeds one hundred thousand pounds sterling a year; and I believe this is not the largest of the coal possessions. With such wealth as this, men may make what improvements they please, and attempt what experiments they may deem worth trying; but should such imaginations ever visit a New England or a United States farmer in his dreams, if Æsop's fable of the frog, who attempted to swell himself to the size of the ox, did not cure him, he might be deemed a fit subject for a lunatic asylum. There are other circumstances in the cases which are to be added, and those are the cheapness of iron, the abundance of coal, and the admirable facility and skill with which the former material is wrought. Wood, and especially the soft woods, which are so much wrought among us, are here scarce and dear, and therefore seldom used for building purposes; bricks, and in many parts of the country, good building stone, of the best quality, are abundant. Most of the cottages which I have seen have brick or stone floors, though many have only hardly-trodden clay and earth; and the entries of the best houses are generally paved and the staircases made of stone. A fence of iron, affording a sufficient protection against cattle, is made here at a less expense than many wooden fences are made with us.—*Colman's Agricultural Tour.*

### The Oak---Curious Experiment.

Take an acorn in the fall of the year, tie a string round it in such a way that when suspended, the blunt end of the acorn where the cup was, is upward. Hang it thus prepared in the inside of a bottle, or hyacinth glass, containing a little water, taking care that the acorn does not reach the water within an inch; wrap the bottle all over in flannel, so as to keep it dark and warm, and put it in a warm place. In three or four weeks the acorn will have swollen, its coat will have burst, and a little white point will make its appearance at the end opposite the water. This point is the root; the acorn is now changing its nature and becoming an oak; still, however, it must be stationed in the dark, still it must be kept clear of the water, and so it must continue till the young root is at least half an inch long.

Then the water may be allowed to rise higher; but it is only when from the neck or the root, a little point begins to turn upward, that it is safe to allow the water to touch it. At this time, the acorn has ceased to be an acorn, and has really become a young oak; for the little point directing itself upward, is the beginning of that trunk which a century later, may form the timber of a frigate. As soon as the young stem begins to shoot, the oak will require a dose of light, a little every day; and it also yearns for more food, so that its root, which in reality is its mouth, must be allowed to touch the water, and to drink it.

After these events have come to pass, our little nursling breathes and must have air; digests, and must have light; sucks greedily, and must have fresh water given to its root, which, however, should never be permitted to be wholly covered; just that point where the stem begins, should always be kept out of the water. The pet having been brought to this, its first state of existence, must be put in the window. At first it will be a stout thread, whitish, and covered with tiny scales; then the scales will expand a little, and the end will become greener.

Next will appear some little leaves; hair will begin to grow, veins will branch; the old scales will fall off, and by slow degrees the leaves will arrange themselves upon the stem, each unfolding from the bosom of the other. And thus, out of a little starch and gum,—for the acorn was not much more—manifold parts will be curiously produced by the wondrous creative powers of nature.—*Gardener's Chronicle.*

The Wheat Crop.—The general report in relation to the wheat crop, is favourable. In some neighbourhoods, complaint is made of the fly, but we think the injury is not extensive. In Burlington and Gloucester, we learn that the rye is considerably injured by the rust.

For the Farmers' Cabinet.

### Bee Moth.

To the Editor,—In the last number of your Cabinet, you say that "on examining your bee hives in the morning, you have been annoyed by frequently finding on their platform, worms full grown, which had no doubt been hatched from the egg of the Bee moth. Where did they come from? Will some of our friends tell us?"

The Bee moth is a nocturnal visiter, and enters the hive after the bees have retired to rest, and deposits its egg in the comb where the insect, when hatched, meets with its proper food, until it arrives at maturity. It then descends to the bench, and incloses itself by the web which it spins, and passes into the pupa or chrysalis state, before it be-

rank, but rather as a pursuit in which they may all most usefully and honourably lend their combined influence.

comes a fly. The moth-worms, which have lived through the winter, will commence leaving the comb the last of March and beginning of April, and continue to do so till late in May; by which time those that came first have become flies—ready to enter the hives and carry on their work of destruction. These insects pass through all their different changes, from the egg to the fly, during the hot months, in the course of five or six weeks. In 1838, I put some of these worms in a glass jar, on the 9th, 12th and 14th of April;—the flies came out after the 23rd of May. Few worms were found under the hives after this date.

To mitigate the ravages of the Bee moth, I spread salt on the bench below the bee hive, and keep it there from March to November. If the worm should descend when the salt is damp, it will be so far prostrated as seldom to recover; but if dry, it has very little effect. Frequent attention is still necessary to meet with success in the management of bees. For further information, I would refer your readers to "Bevan's Treatise on the Honey Bee."

AN OCTOGENARIAN.

Albermarle, Va., May 31st, 1844.

**THE FARMERS' CABINET,**

AND

**AMERICAN HERD-BOOK.**

PHILADELPHIA, SIXTH MONTH, 1844.

## Electro Magnetic Telegraph.

We justly speak with admiration, of the rapidity with which steam enables us to pass from one place to another. It is certainly among the intellectual triumphs of the age, that the genius of FULTON, has enabled us to travel without fatigue or extra risk, at the rate of twenty, or thirty, or forty miles an hour—to breakfast with one's family in this city—transact business in New York or Baltimore, and return to our homes by reasonable bed-time. We reach Liverpool in ten or eleven days, and thus reduce the width of the Atlantic to a line not longer than the road from Philadelphia to Pittsburg used to be.

These are practical applications of science and skill, with which ourselves were astonished within the last quarter of a century, and to which no credit would have been given, had they been foretold to our fathers fifty or sixty years ago. We have little dreamed, while complacently resting under these achievements of our day, that an agent of communication, very simple in its construction, and unerring in its reports, was about to be brought into operation, whose rapidity of action would as much outstrip the speed of steam, as light does that of the wind. Yet such is the fact.

*Morse's Electro Magnetic Telegraph*, has been completed within the last two or three weeks, between Washington and Baltimore, and messages are sent back and forth, by its means, just as rapidly as they can be prepared by the attendant at either end. A person at Baltimore, for instance, inquires *the time of day* at Washington? Should the clock, at the latter place, have just commenced striking twelve, by the time it has finished, the fact that "the clock is striking twelve," may be transmitted and known at Baltimore. Some of our readers, to whom these statements may be new, may possibly conclude that we are not serious in making them: we assure them they are in error. Numerous well authenticated facts, in relation to this machine, have been published, which show that there is no appreciable time between the setting in motion of the apparatus at one end, and its corresponding report at the other. Experiments made, both in England and on the Continent, have been confirmed by those recently made here, and they leave no doubt of the practicability of this mode of communication. It may either be by means of *copper wires*, placed within leaden pipes under ground, or through similar wires above ground, resting on posts. The expense will be $150 or $200 a mile. The cost being comparatively small, and its whole construction simple, the operation of the Telegraph need not be,—as one would at first, perhaps conclude, so powerful an agent must,—confined to the great national thoroughfares, for great national purposes—it may readily be brought into play, wherever it is desired: persons, for instance, may connect their dwellings with their places of business, and thus communicate with them as frequently as they choose. It may be borne in mind that the distance is immaterial—it is not limited to that between the Capitol and Baltimore—or even to that between those places and New Orleans—the electric fluid, with a sufficient battery, may be transmitted, and will perform its office, at probably, any distance, and almost with the rapidity of thought. Were the Telegraphic wire extended from Quebec to Mexico, the intelligence entrusted to it, would just as unerringly, and in the twinkling of an eye, be transmitted between those two places, as it would along a line of twenty miles. It is known that light travels with the amazing velocity of 190,000 miles per second, and the electric fluid does not at all lag behind, in the speed of its flight.

What an amazing field is thus laid open for the researches of science? and what limit shall we venture to assign to its future developments? Space, in reference to the Electro Magnetic Telegraph, is literally annihilated; and time is only limited in its reduction, by the period we necessarily occupy, in preparing what we would transmit. We mean to advert to this subject in a future number, when we will perhaps, give further details, and a clearer description of the machine: meanwhile we may add, as one of the very curious circumstances connected with it, that intelligence may be transmitted through a single wire at the same time, from opposite points: thus, two messages, the one from Baltimore, and the other from Washington, will pass each other on the same wire—traversing it in contrary directions—turning out as it were, without any detention. The same posts will answer for several lines of communication. Each wire, however, must be insulated: and if two are placed horizontally at some distance apart, and one is charged, a similar effect will be produced on the other.

In a letter from our fellow-townsman, Nathan Dunn, to his friend Isaac Collins, of this city, dated "London, January 3rd, 1844," he says, in relation to *Guano*, that "it is exciting great attention of late in this country; about sixty vessels are now gone for it from Liverpool to the west coast of Africa, north of the Line, and some of the adjacent islands. I was called on the other day by Mr. W. Skirving, near Liverpool, whose reputation as gardener, &c., is a sufficient guaranty for the correctness of what he says—he has been experimenting on it for the last ten years, say in several hundred ways each season—upwards of fifty the last, on grasses. He finds it most beneficial on all kinds of grain and roots, as well as on all kinds of grasses. It was first sold at £25 per ton, but is now reduced to £10, and will no doubt, fall soon to £5 or £6 per ton. It is very dry and light, and when pulverized, has the appearance of fine snuff. Two hundred pounds mixed with ashes, and evenly spread over the ground, are thought sufficient for an acre. Sir R. Peel, and many distinguished agriculturists, speak in high terms of its benefits. Jersey requires such a stimulant."

Inquiry has been frequently made, whether the *Guano* could be obtained in Philadelphia. We are not aware of any being now on sale here. No direct importation of it has been made, that we know of. In a recent No. of the American Farmer, it is advertised for sale in Baltimore, at $5½ per 100 lbs., a vessel having arrived in that city with 400 bags.

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At page 83, in the present volume of the Cabinet, attention is called by Samuel D. Ingham, Esq., to the fact of the disappearance of the St. John's Wort—*Perforated Hypericum*—from the clover and pasture fields of New Jersey and Pennsylvania, for the last two years. At a late *Conversation* of the New York Farmers' Club, as reported in the Farmer and Mechanic, the very singular phenomenon is noticed of its general, and almost total disappearance from Maine to the South. Like some other plants, however, it may have its periodical returns, and we may look for it as soon as it is wanted. And yet, we should perhaps not condemn it altogether, but yield it credit for its good qualities. Dr. Darlington says a tincture of the flowers and leaves, is sometimes used with good effect, in some complaints of the stomach and bowels.

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The delightful, though toilsome season of harvest, is now at hand. The scythe is already at work, and the sickle will soon be thrust into its labour. Farmers will, we trust, bear in mind what many are not sufficiently apt to remember, that an excess of sunshine on grass in the making, particularly clover, is decidedly injurious as to quality, and wasteful as to quantity. Clover is best cured with but little stirring in the hot sun. If cured pretty much in small cocks, which should be put up in layers with the fork—not rolled—scarcely a leaf need be lost. Properly cured in this way,—and experience will soon teach the farmer how to manage it—it will retain its freshness and brightness admirably, and will come out of the mow in the winter, with a delicacy of flavour which will delight the cow, no less than her feeder.

We are satisfied also, that grain is very often left too long standing uncut in the field. The risk of injury from storms is increased—it does not handle as well, either in cutting, binding, loading or stacking,—and shatters out more. The opinion is pretty well established, that when wheat or rye is cut early—we mean before the grain is entirely hard, it makes quite as much, and whiter flour, than if left till the usual time. Since writing the above, we happened to read it to an experienced miller, who is also a good farmer: he says he is well satisfied that early cut grain—that which is apparently quite green—will really yield more flour, and is worth several cents a bushel more than that which is suffered to stand till the berry is thoroughly hardened.

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We noticed on the stall of our friend Engelman of Fair Hill, very fine cucumbers on the 1st instant, at a shilling a piece. On the same day our Jersey friends had plenty of good sized round potatoes, at six pence a pound. They were the first we had seen. On the 4th we observed a goodly quantity of string beans in market.

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This number is forwarded with a bill to the subscribers of the late *Pennsylvania Farmer*, supposing they may be inclined to substitute the Cabinet for that paper:—should this be the case, they will forward through the Post master one years' subscription—$1—when a receipt will be forthwith returned for volume 9, commencing in the eighth month next.

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Our indebtedness is again acknowledged to H. L. Ellsworth, for a copy of the List of Patents granted in the year 1843. We observe that seven were issued for Bee hives, and fourteen for Ploughs.

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The proper season for trimming the grape vine is in the eleventh or twelfth month, when the sap has ceased flowing, or in the second or third month, previously to its commencing. If a choice vine however, should be broken off at a season when the sap is active, and it is consequently liable to injury from bleeding—or if at such season it is necessary to prune a little, the Prairie Farmer says the end cut off may be sharpened to a point and stuck in a potatoe, and thus injury will be prevented. The British American Cultivator says a piece of moistened bladder folded over the cut end, and bound tightly around it with wrapping thread will answer the same purpose; and a friend at our elbow further says, a little paint well rubbed on the wound, is as good as any thing.

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We would call the attention of farmers who want Agricultural Implements, Seeds, &c., to the advertisements of our friends on the last page. Cheap and good articles may be obtained at those places.

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☞ SHORT ADVERTISEMENTS. ☜

The subject matter of which, may correspond with the agricultural character of this paper, will be inserted at the rate of one dollar for each insertion of ten lines or less; and so in proportion for each additional line.

The first number of "Colman's European Agriculture, and Rural Economy," has been received, and one or two extracts from it, will be found in the present number. Though to a considerable degree miscellaneous, and not so full of that practical information and detail which he designs to give hereafter, this number will nevertheless be found not deficient in practical value. The objects of enquiry to our traveller, are of course, various and extensive, embracing every thing connected with the cultivation of the earth, the improvements which are continually going on in agriculture, and every branch of husbandry, and rural and domestic economy. The openness and frankness, and thorough feeling of brotherhood with which he has been received in the best agricultural circles, as well as by the most energetic and public spirited individual agriculturists, will afford every facility that can be desired, for obtaining all the information sought. We may learn a great deal in England, which is scarcely known in the United States. Every agricultural operation must unquestionably be modified by various local circumstances, yet many things of a practical nature, may be advantageously transplanted from the agriculture of England, to that of our own country. We shall find in the Reports of our friend, that the information needed, has been collected and drawn from authentic sources, selected and combined with judgment, and presented in a properly condensed form. The price will be five dollars.

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We learn by late arrivals, that India Rubber horse shoes have been submitted to the Horse Guards for inspection, with the belief that they will answer a good purpose:—and that passengers have proceeded on the Great Western Rail-way, at the rate of 56 miles an hour.

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A copy of the Chemical and Physiological Balance of Organic Nature; an Essay by M. J. Dumas, and M. J. B. Boussingault, has been received through Lindsay & Blakiston, from Saxton & Miles, the publishers in New York. We find abundance in the lecture with which this little volume opens, to arouse reflection and stimulate the inquisitive philosopher to still greater research. It confirms the opinion over and again advanced, that the more thoroughly we search into the operations of nature, the more forcibly we are struck with the simplicity of her means—the harmony which results from the operation of her laws and the perfectness of that wisdom which planned and sustains all. The *balance*, which it is one object of this volume to show, is kept up by the different functions of the animal and vegetable kingdoms, is really very ingenious and beautiful. The animal is represented as constituting a true apparatus of combustion, consuming what the vegetable produces, and in turn throwing off, or yielding what the vegetable requires,—thus giving and taking in such a manner, as to keep up the undisturbed balance of organic nature.

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LEANDER.—In our next No., we hope to be able to give the portrait and pedigree, of the beautiful young Bull, *Leander*, son to the celebrated Durham Cow, *Dairy Maid*, bred and owned by James Gowen, of Mount Airy. Our readers at a distance, who may not have an opportunity to view this noble animal at the farm of his owner, will no doubt be pleased with seeing a faithful likeness of him in the Cabinet, and as J. A. Woodside is engaged to do the drawing, there need be no fear but it will be done most accurately.

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We keep on hand at this office, and will supply our friends with Agricultural works generally. Among which are

| | |
|---|---|
| THE FARMER'S ENCYCLOPEDIA, full-bound in leather;—Price | $4 00 |
| YOUATT ON THE HORSE, with J. S. Skinner's very valuable Additions; | 2 00 |
| BRIDGEMAN'S GARDENER'S ASSISTANT; | 2 00 |
| THE AMERICAN POULTRY BOOK; | 37½ |
| THE FARMER'S LAND MEASURER; | 37½ |
| DANA'S MUCK MANUAL; | 60 |
| Complete sets of the FARMERS' CABINET, half-bound, 7 vols. | 5 75 |
| BEVAN on the HONEY BEE, | 31½ |
| BUISTS' ROSE MANUAL, | 75 |
| SKINNER'S CATTLE DOCTOR, | 50 |
| THE FARMER'S MINE, | 75 |
| JOHNSTON'S Agricultural Chemistry, | 2 25 |
| LIEBIG'S AGRICULTURAL CHEMISTRY, | 25 |
| " ANIMAL CHEMISTRY, | 25 |
| " FAMILIAR LETTERS, | 12½ |

As well as his larger works on Chemistry and Agriculture.

Subscriptions will be received for Colman's Agricultural Tour in England and on the Continent.

☞ We are prepared to bind books to order.

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The following premiums will be awarded by the Pennsylvania Horticultural Society, at an intermediate meeting on the 2nd of next month; the premiums for the 18th inst., were given last month.

For the best Flake Carnations, four named varieties to be exhibited, $2.

For the best Bizarre Carnations, do. do. do. $2.

For the best Picotee Carnations, do. do. do. $2.

For the best American Seedling Carnation, $2.

For the best Cauliflowers, grown in the open ground, without protection, not less than four bunches, $3.

For the next best Cauliflowers, grown as above, not less than four bunches, $2.

At the Stated meeting on the 16th of next month:—

For the best Raspberries, not less than two quarts, $2.

For the best Red Currants, do. do. do. $2.

For the best White Currants, do. do. do. $2.

For the Best Black Currants, do. do. do. $2.

For the best named Gooseberries, in a ripe state, not less than one quart, $2.

For the best named Apricots, not less than two dozens, $2.

For the best named early Apples, not less than half a peck, $2.

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Six steers belonging to John Sharpless, of Delaware county, in this State, while grazing in the field, were recently struck by lightning, and instantly killed. And three valuable horses belonging to Samuel Ogden, near Sweedesborough, in Gloucester county, N. J., which had been left in the pasture, were killed in the same way, during the violent thunderstorm in the night of the 16th ult.

## COATES' SEED STORE,

*No. 49 Market Street, Up Stairs:*

## FRESH TURNIP SEED,

*Of the most approved varieties for Cattle and Table use, with a complete Assortment of*

## GRASS & GARDEN SEEDS,

Of the finest Quality and best Varieties—Bird Seeds, &c,

JOS. P. H. COATES,

*Successor to George M. Coates.*

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## Seed and Implement Ware-house.

The subscriber has on hand and for sale, a few pounds of *Dickson's Improved Hybrid Ruta-baga seed;* this turnip is larger, better flavoured, and more productive than the common kinds. Garden, grass, and flower seeds of all kinds, warranted fresh. Also, Straw-cutters of eight different patterns; among which are Hovey's & Conklin's, new and very superior—price from $15 to $25 each. Turnip Drills, $2 50 to $8. Corn-Planters of various patterns. *Horse Rakes*, Cultivators, Churns, Centre-draught Ploughs, from $4 50 to $13 each. Side-hill, Subsoil, Double-mould, and Shovel Ploughs. New York Ploughs, from $2 to $6 each. Also good Scythes, various makers, 75 cents to $1 each. Scythe Sneeds, from 37½ to 87½ cents; Rakes, Forks, made of cast-steel, a superior article—Grass Hooks, Brier Hooks, Potatoe Hoes, Brier Scythes, Cow Chains, Grain Cradles, very cheap—Garden-lines and Reels, &c., &c., for sale at the lowest prices. Persons in want of implements or seeds, are invited to call at the Seed and Implement Ware-house, No. 176, Market street, between Fifth and Sixth streets, Philadelphia.

D. O. Prouty.

*May 15th*, 1844.

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## PHILADELPHIA SEED STORE,

No. 23 MARKET STREET.

M. S. Powell keeps a constant supply of Clover and other Grass Seeds. Also, Northern Seed Barley; Potatoe Oats, crop 1843, weighing 40 lbs. to the bushel; Seed-corn,—among which are, Cooper's Celebrated Prolific Corn, &c. &c.

☞ GARDEN SEEDS generally.

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POUDRETTE—a valuable manure—of the best quality, prepared in Philadelphia, for sale at the office of the Farmers' Cabinet, No. 50, N. Fourth street, or at the manufactory, near the Penitentiary on Coates' street. Present price, $1 75 per barrel, containing four bushels—$5 for three barrels—$15 for ten barrels, or thirty cents a bushel. Orders from a distance, enclosing the cash, with cost of porterage, will be promptly attended to, by carefully delivering the barrels on board of such conveyance as may be designated. Farmers to the South, and in the interior, both of this State and New Jersey, are invited to try the article. As a manure for turnips, potatoes, buckwheat, &c., it has been used to great advantage.

D. K. Minor.


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The quantity of rain which fell during the Fifth month, (May,) 1844, was a little more than three inches. ..... 3.091 inches.

*Penn. Hospital, 6th mo., 1st.*

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## THE FARMERS' CABINET,

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It is issued on the fifteenth of every month, in numbers of 32 octavo pages each. The subjects will be illustrated by engravings, when they can be appropriately introduced.

Terms.—One dollar per annum, or five dollars for seven copies—*payable in advance.*

All subscriptions must commence at the *beginning* of a volume. Having lately struck off a new edition of one or two of the former numbers, which had become exhausted, we are now able to supply, to a limited extent, any of the back volumes. They may be had at one dollar each, in numbers, or one dollar twenty-five cents half-bound and lettered.

For five dollars paid in advance, a *complete set* of the work will be furnished in numbers, including the eighth volume. The whole can thus readily be forwarded by mail. For twenty-five cents additional, per volume, the work may be obtained neatly *half-bound and lettered.* Copies returned to the office of publication, will also be bound upon the same terms.

By the decision of the Post Master General, the "Cabinet," is subject only to newspaper postage: that is, one cent on each number within the state, or within one hundred miles of the place of publication out of the state,—and one cent and a half to any other part of the United States—and Post Masters are at liberty to receive subscriptions, and forward them to the Publisher under their frank—thus affording an opportunity to all who wish it, to order the work, and pay for it without expense of postage.

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Joseph Rakestraw, Printer.